

# GXF Series

- Downsizing and high-ripple current version of GXE series
- For automobile modules and networking equipment and other high temperature applications
- Endurance with ripple current : 3,000 hours at 125°C
- Solvent resistant type except 160 to 400V<sub>dc</sub>
- RoHS2 Compliant
- AEC-Q200 compliant : Please contact Chemi-Con for more details, test data, information.

Downsized  
Higher ripple current  
GXE →

GXF

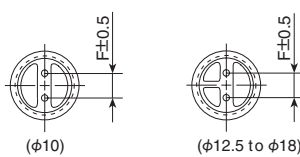
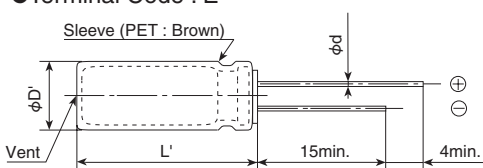


## SPECIFICATIONS

| Items                                                  | Characteristics                                                                                                                                                                                                                                                                                                                   |                                      |      |      |                           |                                      |      |             |               |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------|------|---------------------------|--------------------------------------|------|-------------|---------------|
| Category                                               | -40 to +125°C                                                                                                                                                                                                                                                                                                                     |                                      |      |      |                           |                                      |      |             |               |
| Temperature Range                                      |                                                                                                                                                                                                                                                                                                                                   |                                      |      |      |                           |                                      |      |             |               |
| Rated Voltage Range                                    | 25 to 400V <sub>dc</sub>                                                                                                                                                                                                                                                                                                          |                                      |      |      |                           |                                      |      |             |               |
| Capacitance Tolerance                                  | ± 20% (M) (20°C, 120Hz)                                                                                                                                                                                                                                                                                                           |                                      |      |      |                           |                                      |      |             |               |
| Leakage Current                                        | 25 to 100V <sub>dc</sub>                                                                                                                                                                                                                                                                                                          |                                      |      |      | 160 to 400V <sub>dc</sub> |                                      |      |             |               |
|                                                        | I=0.03CV or 4 μA, whichever is greater.                                                                                                                                                                                                                                                                                           |                                      |      |      | CV≤ 1,000                 | I=0.1CV+40                           |      |             |               |
|                                                        |                                                                                                                                                                                                                                                                                                                                   |                                      |      |      | CV> 1,000                 | I=0.04CV+100                         |      |             |               |
|                                                        | Where, I : Max. leakage current ( μA), C : Nominal capacitance ( μF), V : Rated voltage (V) (at 20°C after 1 minute)                                                                                                                                                                                                              |                                      |      |      |                           |                                      |      |             |               |
| Dissipation Factor (tan δ )                            | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                                                                  | 25V                                  | 35V  | 50V  | 63V                       | 80V                                  | 100V | 160 to 250V | 350 to 400V   |
|                                                        | tan δ (Max.)                                                                                                                                                                                                                                                                                                                      | 0.14                                 | 0.12 | 0.10 | 0.10                      | 0.08                                 | 0.08 | 0.15        | 0.20          |
|                                                        | When nominal capacitance exceeds 1,000 μF, add 0.02 to the value above for each 1,000 μF increase. (at 20°C, 120Hz)                                                                                                                                                                                                               |                                      |      |      |                           |                                      |      |             |               |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated voltage (V <sub>dc</sub> )                                                                                                                                                                                                                                                                                                  | 25V                                  | 35V  | 50V  | 63V                       | 80V                                  | 100V | 160 to 250V | 350 to 400V   |
|                                                        | Z (-25°C)/Z (+20°C)                                                                                                                                                                                                                                                                                                               | 2                                    | 2    | 2    | 2                         | 2                                    | 2    | 3           | 6             |
|                                                        | Z (-40°C)/Z (+20°C)                                                                                                                                                                                                                                                                                                               | 4                                    | 4    | 4    | 4                         | 4                                    | 4    | 6           | 12 (at 120Hz) |
| Endurance                                              | The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied (the peak voltage shall not exceed the rated voltage) for the 3,000 hours at 125°C.                                                                               |                                      |      |      |                           |                                      |      |             |               |
|                                                        | Rated Voltage                                                                                                                                                                                                                                                                                                                     | 25 to 100V <sub>dc</sub>             |      |      |                           | 160 to 400V <sub>dc</sub>            |      |             |               |
|                                                        | Capacitance change                                                                                                                                                                                                                                                                                                                | ≤ ±30% of the initial value          |      |      |                           | ≤ ±20% of the initial value          |      |             |               |
|                                                        | D.F. (tan δ )                                                                                                                                                                                                                                                                                                                     | ≤300% of the initial specified value |      |      |                           | ≤200% of the initial specified value |      |             |               |
|                                                        | Leakage current                                                                                                                                                                                                                                                                                                                   | ≤The initial specified value         |      |      |                           | ≤The initial specified value         |      |             |               |
| Shelf Life                                             | The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours (500hours for 160 to 400V <sub>dc</sub> ) at 125°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4. |                                      |      |      |                           |                                      |      |             |               |
|                                                        | Rated Voltage                                                                                                                                                                                                                                                                                                                     | 25 to 100V <sub>dc</sub>             |      |      |                           | 160 to 400V <sub>dc</sub>            |      |             |               |
|                                                        | Capacitance change                                                                                                                                                                                                                                                                                                                | ≤ ±30% of the initial value          |      |      |                           | ≤ ±20% of the initial value          |      |             |               |
|                                                        | D.F. (tan δ )                                                                                                                                                                                                                                                                                                                     | ≤300% of the initial specified value |      |      |                           | ≤200% of the initial specified value |      |             |               |
|                                                        | Leakage current                                                                                                                                                                                                                                                                                                                   | ≤The initial specified value         |      |      |                           | ≤500% of the initial specified value |      |             |               |

## DIMENSIONS [mm]

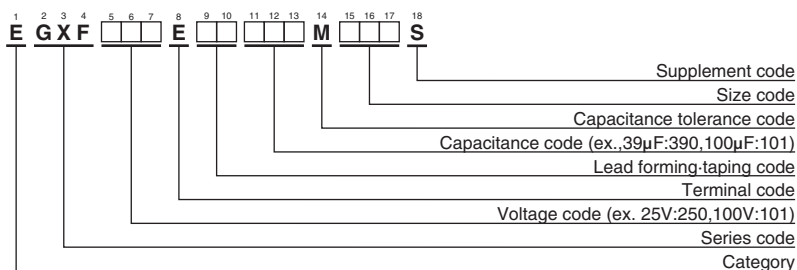
### Terminal Code : E



Gas escape end seal

| ΦD  | 10         | 12.5 | 14.5 | 16  | 18  |
|-----|------------|------|------|-----|-----|
| Φd  | 0.6        | 0.6  | 0.8  | 0.8 | 0.8 |
| F   | 5.0        | 5.0  | 7.5  | 7.5 | 7.5 |
| ΦD' | ΦD+0.5max. |      |      |     |     |
| L'  | L+1.5max.  |      |      |     |     |

## PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"

## ◆STANDARD RATINGS

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φDxL(mm) | ESR<br>(Ωmax./100kHz) |       | Rated<br>ripple<br>current<br>(mA <sub>rms</sub> /125°C, 100kHz) | Part No.           | WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φDxL(mm) | ESR<br>(Ωmax./100kHz) |       | Rated<br>ripple<br>current<br>(mA <sub>rms</sub> /125°C, 100kHz) | Part No.           |
|--------------------------|-------------|-----------------------|-----------------------|-------|------------------------------------------------------------------|--------------------|--------------------------|-------------|-----------------------|-----------------------|-------|------------------------------------------------------------------|--------------------|
|                          |             |                       | 20°C                  | -40°C |                                                                  |                    |                          |             |                       | 20°C                  | -40°C |                                                                  |                    |
| 25                       | 510         | 10×12.5               | 0.14                  | 2.1   | 900                                                              | EGXF250E□□511MJCS5 | 50                       | 680         | 14.5×20               | 0.038                 | 0.22  | 1,610                                                            | EGXF500E□□681MU20S |
|                          | 750         | 10×16                 | 0.094                 | 1.5   | 1,300                                                            | EGXF250E□□751MJ16S |                          | 750         | 12.5×25               | 0.038                 | 0.18  | 2,030                                                            | EGXF500E□□751MK25S |
|                          | 910         | 12.5×15               | 0.082                 | 1.1   | 1,220                                                            | EGXF250E□□911MK15S |                          | 750         | 18×15                 | 0.085                 | 0.87  | 1,370                                                            | EGXF500E□□751MM15S |
|                          | 1,200       | 10×20                 | 0.073                 | 1.1   | 1,540                                                            | EGXF250E□□122MJ20S |                          | 910         | 16×20                 | 0.037                 | 0.17  | 1,740                                                            | EGXF500E□□911ML20S |
|                          | 1,200       | 14.5×15               | 0.067                 | 0.80  | 1,320                                                            | EGXF250E□□122MU15S |                          | 1,000       | 12.5×30               | 0.031                 | 0.14  | 2,510                                                            | EGXF500E□□102MK30S |
|                          | 1,500       | 10×25                 | 0.042                 | 0.24  | 1,880                                                            | EGXF250E□□152MJ25S |                          | 1,000       | 14.5×25               | 0.031                 | 0.14  | 2,480                                                            | EGXF500E□□102MU25S |
|                          | 1,600       | 16×15                 | 0.063                 | 0.76  | 1,430                                                            | EGXF250E□□162ML15S |                          | 1,200       | 12.5×35               | 0.027                 | 0.11  | 2,900                                                            | EGXF500E□□122MK35S |
|                          | 1,800       | 12.5×20               | 0.038                 | 0.19  | 1,590                                                            | EGXF250E□□182MK20S |                          | 1,200       | 18×20                 | 0.036                 | 0.14  | 1,830                                                            | EGXF500E□□122MM20S |
|                          | 2,000       | 10×30                 | 0.033                 | 0.19  | 2,150                                                            | EGXF250E□□202MJ30S |                          | 1,300       | 14.5×30               | 0.026                 | 0.11  | 2,870                                                            | EGXF500E□□132MU30S |
|                          | 2,200       | 14.5×20               | 0.030                 | 0.17  | 1,780                                                            | EGXF250E□□222MU20S |                          | 1,300       | 16×25                 | 0.027                 | 0.13  | 2,690                                                            | EGXF500E□□132ML25S |
|                          | 2,400       | 18×15                 | 0.053                 | 0.51  | 1,630                                                            | EGXF250E□□242MM15S |                          | 1,500       | 12.5×40               | 0.023                 | 0.090 | 3,260                                                            | EGXF500E□□152MK40S |
|                          | 2,700       | 12.5×25               | 0.030                 | 0.14  | 2,280                                                            | EGXF250E□□272MK25S |                          | 1,500       | 14.5×35               | 0.023                 | 0.085 | 3,160                                                            | EGXF500E□□152MM35S |
|                          | 3,000       | 16×20                 | 0.029                 | 0.13  | 1,890                                                            | EGXF250E□□302ML20S |                          | 1,600       | 16×30                 | 0.023                 | 0.094 | 3,150                                                            | EGXF500E□□162ML30S |
|                          | 3,300       | 12.5×30               | 0.025                 | 0.10  | 2,760                                                            | EGXF250E□□332MK30S |                          | 1,800       | 18×25                 | 0.025                 | 0.11  | 2,900                                                            | EGXF500E□□182MM25S |
|                          | 3,600       | 14.5×25               | 0.025                 | 0.11  | 2,760                                                            | EGXF250E□□362MU25S |                          | 2,000       | 14.5×40               | 0.020                 | 0.072 | 3,560                                                            | EGXF500E□□202MU40S |
|                          | 4,300       | 12.5×35               | 0.022                 | 0.080 | 3,120                                                            | EGXF250E□□432MK35S |                          | 2,000       | 16×35                 | 0.020                 | 0.074 | 3,470                                                            | EGXF500E□□202ML35S |
|                          | 4,300       | 16×25                 | 0.022                 | 0.092 | 3,030                                                            | EGXF250E□□432ML25S |                          | 2,200       | 18×30                 | 0.021                 | 0.079 | 3,330                                                            | EGXF500E□□222MM30S |
|                          | 4,300       | 18×20                 | 0.028                 | 0.10  | 1,930                                                            | EGXF250E□□432MM20S |                          | 2,400       | 16×40                 | 0.018                 | 0.063 | 3,800                                                            | EGXF500E□□242ML40S |
|                          | 4,700       | 14.5×30               | 0.020                 | 0.081 | 3,090                                                            | EGXF250E□□472MU30S |                          | 2,700       | 18×35                 | 0.019                 | 0.065 | 3,590                                                            | EGXF500E□□272MM35S |
|                          | 5,100       | 12.5×40               | 0.019                 | 0.068 | 3,610                                                            | EGXF250E□□512MK40S |                          | 3,300       | 18×40                 | 0.017                 | 0.058 | 3,850                                                            | EGXF500E□□332MM40S |
|                          | 5,100       | 14.5×35               | 0.018                 | 0.065 | 3,430                                                            | EGXF250E□□512MU35S | 63                       | 390         | 12.5×20               | 0.097                 | 0.75  | 1,310                                                            | EGXF630E□□391MK20S |
|                          | 5,100       | 16×30                 | 0.018                 | 0.071 | 3,330                                                            | EGXF250E□□512ML30S |                          | 510         | 12.5×25               | 0.072                 | 0.55  | 1,880                                                            | EGXF630E□□511MK25S |
|                          | 5,600       | 18×25                 | 0.020                 | 0.078 | 3,200                                                            | EGXF250E□□562MM25S |                          | 510         | 14.5×20               | 0.072                 | 0.59  | 1,510                                                            | EGXF630E□□511MU20S |
|                          | 6,800       | 14.5×40               | 0.016                 | 0.054 | 3,820                                                            | EGXF250E□□682MU40S |                          | 620         | 16×20                 | 0.062                 | 0.39  | 1,630                                                            | EGXF630E□□621ML20S |
|                          | 6,800       | 16×35                 | 0.016                 | 0.056 | 3,630                                                            | EGXF250E□□682ML35S |                          | 680         | 12.5×30               | 0.052                 | 0.37  | 2,410                                                            | EGXF630E□□681MK30S |
|                          | 7,500       | 18×30                 | 0.016                 | 0.060 | 3,480                                                            | EGXF250E□□752MM30S |                          | 680         | 14.5×25               | 0.054                 | 0.40  | 2,130                                                            | EGXF630E□□681MU25S |
|                          | 8,200       | 16×40                 | 0.015                 | 0.048 | 3,930                                                            | EGXF250E□□822ML40S |                          | 820         | 12.5×35               | 0.044                 | 0.29  | 2,760                                                            | EGXF630E□□821MK35S |
|                          | 9,100       | 18×35                 | 0.015                 | 0.049 | 3,750                                                            | EGXF250E□□912MM35S |                          | 820         | 18×20                 | 0.055                 | 0.29  | 1,750                                                            | EGXF630E□□821MM20S |
|                          | 11,000      | 18×40                 | 0.014                 | 0.043 | 4,040                                                            | EGXF250E□□113MM40S |                          | 910         | 14.5×30               | 0.042                 | 0.30  | 2,700                                                            | EGXF630E□□911MU30S |
| 35                       | 300         | 10×12.5               | 0.14                  | 2.1   | 900                                                              | EGXF350E□□301MJCS5 |                          | 910         | 16×25                 | 0.047                 | 0.27  | 2,300                                                            | EGXF630E□□911ML25S |
|                          | 510         | 10×16                 | 0.094                 | 1.5   | 1,300                                                            | EGXF350E□□511MJ16S |                          | 1,000       | 12.5×40               | 0.038                 | 0.26  | 3,080                                                            | EGXF630E□□102MK40S |
|                          | 560         | 12.5×15               | 0.082                 | 1.1   | 1,220                                                            | EGXF350E□□561MK15S |                          | 1,100       | 14.5×35               | 0.037                 | 0.24  | 2,940                                                            | EGXF630E□□112MU35S |
|                          | 680         | 10×20                 | 0.073                 | 1.1   | 1,540                                                            | EGXF350E□□681MJ20S |                          | 1,100       | 16×30                 | 0.037                 | 0.23  | 2,940                                                            | EGXF630E□□112ML30S |
|                          | 750         | 14.5×15               | 0.067                 | 0.80  | 1,320                                                            | EGXF350E□□751MU15S |                          | 1,200       | 18×25                 | 0.044                 | 0.22  | 2,440                                                            | EGXF630E□□122MM25S |
|                          | 820         | 10×25                 | 0.042                 | 0.24  | 1,880                                                            | EGXF350E□□821MJ25S |                          | 1,300       | 14.5×40               | 0.032                 | 0.20  | 3,350                                                            | EGXF630E□□132MU40S |
|                          | 1,100       | 12.5×20               | 0.038                 | 0.19  | 1,590                                                            | EGXF350E□□112MK20S |                          | 1,300       | 16×35                 | 0.031                 | 0.17  | 3,220                                                            | EGXF630E□□132ML35S |
|                          | 1,100       | 16×15                 | 0.063                 | 0.76  | 1,430                                                            | EGXF350E□□112ML15S |                          | 1,500       | 18×30                 | 0.037                 | 0.18  | 3,100                                                            | EGXF630E□□152MM30S |
|                          | 1,200       | 10×30                 | 0.033                 | 0.19  | 2,150                                                            | EGXF350E□□122MJ30S |                          | 1,800       | 16×40                 | 0.028                 | 0.15  | 3,590                                                            | EGXF630E□□182ML40S |
|                          | 1,500       | 12.5×25               | 0.030                 | 0.14  | 2,280                                                            | EGXF350E□□152MK25S |                          | 2,000       | 18×35                 | 0.028                 | 0.13  | 3,450                                                            | EGXF630E□□202MM35S |
|                          | 1,500       | 14.5×20               | 0.030                 | 0.17  | 1,780                                                            | EGXF350E□□152MU20S |                          | 2,400       | 18×40                 | 0.023                 | 0.10  | 3,690                                                            | EGXF630E□□242MM40S |
|                          | 1,500       | 18×15                 | 0.053                 | 0.51  | 1,630                                                            | EGXF350E□□152MM15S | 80                       | 240         | 12.5×20               | 0.097                 | 0.75  | 1,310                                                            | EGXF800E□□241MK20S |
|                          | 2,000       | 12.5×30               | 0.025                 | 0.10  | 2,760                                                            | EGXF350E□□202MK30S |                          | 330         | 12.5×25               | 0.072                 | 0.55  | 1,880                                                            | EGXF800E□□331MK25S |
|                          | 2,000       | 16×20                 | 0.029                 | 0.13  | 1,890                                                            | EGXF350E□□202ML20S |                          | 330         | 14.5×20               | 0.072                 | 0.59  | 1,510                                                            | EGXF800E□□331MU20S |
|                          | 2,200       | 14.5×25               | 0.025                 | 0.11  | 2,760                                                            | EGXF350E□□222MU25S |                          | 390         | 16×20                 | 0.062                 | 0.39  | 1,630                                                            | EGXF800E□□391ML20S |
|                          | 2,400       | 12.5×35               | 0.022                 | 0.080 | 3,120                                                            | EGXF350E□□242MK35S |                          | 430         | 12.5×30               | 0.052                 | 0.37  | 2,410                                                            | EGXF800E□□431MK30S |
|                          | 2,400       | 16×25                 | 0.022                 | 0.092 | 3,030                                                            | EGXF350E□□242ML25S |                          | 470         | 14.5×25               | 0.054                 | 0.40  | 2,130                                                            | EGXF800E□□471MU25S |
|                          | 2,400       | 18×20                 | 0.028                 | 0.10  | 1,930                                                            | EGXF350E□□242MM20S |                          | 560         | 12.5×35               | 0.044                 | 0.29  | 2,760                                                            | EGXF800E□□561MK35S |
|                          | 2,700       | 12.5×40               | 0.019                 | 0.068 | 3,610                                                            | EGXF350E□□272MK40S |                          | 560         | 16×25                 | 0.047                 | 0.27  | 2,300                                                            | EGXF800E□□561ML25S |
|                          | 2,700       | 14.5×30               | 0.020                 | 0.081 | 3,090                                                            | EGXF350E□□272MU30S |                          | 560         | 18×20                 | 0.055                 | 0.29  | 1,750                                                            | EGXF800E□□561MM20S |
|                          | 3,000       | 14.5×35               | 0.018                 | 0.065 | 3,430                                                            | EGXF350E□□302MU35S |                          | 620         | 12.5×40               | 0.038                 | 0.26  | 3,080                                                            | EGXF800E□□621MK40S |
|                          | 3,300       | 16×30                 | 0.018                 | 0.071 | 3,330                                                            | EGXF350E□□332ML30S |                          | 620         | 14.5×30               | 0.042                 | 0.30  | 2,700                                                            | EGXF800E□□621MU30S |
|                          | 3,300       | 18×25                 | 0.020                 | 0.078 | 3,200                                                            | EGXF350E□□332MM25S |                          | 680         | 14.5×35               | 0.037                 | 0.24  | 2,940                                                            | EGXF800E□□681MU35S |
|                          | 3,900       | 14.5×40               | 0.016                 | 0.054 | 3,820                                                            | EGXF350E□□392MU40S |                          | 680         | 16×30                 | 0.037                 | 0.23  | 2,940                                                            | EGXF800E□□681ML30S |
|                          | 4,300       | 16×35                 | 0.016                 | 0.056 | 3,630                                                            | EGXF350E□□432ML35S |                          | 750         | 18×25                 | 0.044                 | 0.22  | 2,440                                                            | EGXF800E□□751MM25S |
|                          | 4,300       | 18×30                 | 0.016                 | 0.060 | 3,480                                                            | EGXF350E□□432MM30S |                          | 820         | 14.5×40               | 0.032                 | 0.20  | 3,350                                                            | EGXF800E□□821MU40S |
|                          | 4,700       | 16×40                 | 0.015                 | 0.048 | 3,930                                                            | EGXF350E□□472ML40S | 100                      | 910         | 16×35                 | 0.031                 | 0.17  | 3,220                                                            | EGXF800E□□911ML35S |
|                          | 5,100       | 18×35                 | 0.015                 | 0.049 | 3,750                                                            | EGXF350E□□512MM35S |                          | 910         | 18×30                 | 0.037                 | 0.18  | 3,100                                                            | EGXF800E□□911MM30S |
|                          | 6,200       | 18×40                 | 0.014                 | 0.043 | 4,040                                                            | EGXF350E□□622MM40S |                          | 1,100       | 16×40                 | 0.028                 | 0.15  | 3,590                                                            | EGXF800E□□112ML40S |
| 50                       | 160         | 10×12.5               | 0.24                  | 3.6   | 730                                                              | EGXF500E□□161MJCS5 |                          | 1,300       | 18×35                 | 0.028                 | 0.13  | 3,450                                                            | EGXF800E□□132MM35S |
|                          | 240         | 10×16                 | 0.16                  | 2.5   | 1,080                                                            | EGXF500E□□241MJ16S |                          | 1,500       | 18×40                 | 0.023                 | 0.10  | 3,690                                                            | EGXF800E□□152MM40S |
|                          | 270         | 12.5×15               | 0.14                  | 1.8   | 1,020                                                            | EGXF500E□□271MK15S |                          | 130         | 12.5×20               | 0.12                  | 0.94  | 1,210                                                            | EGXF101E□□131MK20S |
|                          | 330         | 10×20                 | 0.12                  | 1.8   | 1,290                                                            | EGXF500E□□331MJ20S |                          | 180         | 14.5×20               | 0.082                 | 0.69  | 1,450                                                            | EGXF101E□□181MU20S |
|                          | 390         | 14.5×15               | 0.12                  | 1.4   | 1,090                                                            | EGXF500E□□391MU15S |                          | 200         | 12.5×25               | 0.082                 | 0.70  | 1,800                                                            | EGXF101E□□201MK25S |
|                          | 430         | 10×25                 | 0.055                 | 0.31  | 1,740                                                            | EGXF500E□□431MJ25S |                          | 240         | 12.5×30               | 0.062                 | 0.52  | 2,290                                                            | EGXF101E□□241MK30S |
|                          | 510         | 12.5×20               | 0.049                 | 0.24  | 1,410                                                            | EGXF500E□□511MK20S |                          | 240         | 16×20                 | 0.071                 | 0.53  | 1,580                                                            | EGXF101E□□241ML20S |
|                          | 560         | 10×30                 | 0.041                 | 0.25  | 2,020                                                            | EGXF500E□□561MJ30S |                          | 270         | 14.5×25               | 0.064                 | 0.52  | 2,050                                                            | EGXF101E□□271MU25S |
|                          | 560         | 16×15                 | 0.11                  | 1.3   | 1,190                                                            | EGXF500E□□561ML15S |                          | 330         | 12.5×35               | 0.051                 | 0.38  | 2,680                                                            | EGXF101E□□331MK35S |

## ◆STANDARD RATINGS

□ is not solvent resistant.

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Case size<br>φDxL(mm) | ESR<br>(Ωmax./100kHz) |       | Rated<br>ripple<br>current<br>(mA <sub>rms</sub> /125°C,<br>100kHz) | Part No.           |
|--------------------------|-------------|-----------------------|-----------------------|-------|---------------------------------------------------------------------|--------------------|
|                          |             |                       | 20°C                  | -40°C |                                                                     |                    |
| 100                      | 330         | 16×25                 | 0.057                 | 0.39  | 2,190                                                               | EGXF101E□□331ML25S |
|                          | 330         | 18×20                 | 0.069                 | 0.39  | 1,690                                                               | EGXF101E□□331MM20S |
|                          | 360         | 14.5×30               | 0.050                 | 0.40  | 2,620                                                               | EGXF101E□□361MU30S |
|                          | 390         | 12.5×40               | 0.044                 | 0.33  | 2,970                                                               | EGXF101E□□391MK40S |
|                          | 390         | 14.5×35               | 0.044                 | 0.33  | 2,850                                                               | EGXF101E□□391MU35S |
|                          | 390         | 16×30                 | 0.044                 | 0.33  | 2,770                                                               | EGXF101E□□391ML30S |
|                          | 430         | 18×25                 | 0.054                 | 0.32  | 2,310                                                               | EGXF101E□□431MM25S |
|                          | 510         | 14.5×40               | 0.038                 | 0.26  | 3,230                                                               | EGXF101E□□511MU40S |
|                          | 510         | 16×35                 | 0.037                 | 0.26  | 3,010                                                               | EGXF101E□□511ML35S |
|                          | 560         | 18×30                 | 0.043                 | 0.26  | 2,830                                                               | EGXF101E□□561MM30S |
|                          | 620         | 16×40                 | 0.032                 | 0.21  | 3,320                                                               | EGXF101E□□621ML40S |
|                          | 680         | 18×35                 | 0.034                 | 0.19  | 3,210                                                               | EGXF101E□□681MM35S |
| 160                      | 820         | 18×40                 | 0.029                 | 0.16  | 3,410                                                               | EGXF101E□□821MM40S |
|                          | 51          | 10×20                 | —                     | —     | 900                                                                 | EGXF161E□□510MJ20S |
|                          | 62          | 10×25                 | —                     | —     | 1,200                                                               | EGXF161E□□620MJ25S |
|                          | 75          | 12.5×20               | —                     | —     | 1,220                                                               | EGXF161E□□750MK20S |
|                          | 82          | 10×30                 | —                     | —     | 1,410                                                               | EGXF161E□□820MJ30S |
|                          | 100         | 10×35                 | —                     | —     | 1,600                                                               | EGXF161E□□101MJ35S |
|                          | 100         | 14.5×20               | —                     | —     | 1,340                                                               | EGXF161E□□101MU20S |
|                          | 110         | 12.5×25               | —                     | —     | 1,510                                                               | EGXF161E□□111MK25S |
|                          | 120         | 10×40                 | —                     | —     | 1,790                                                               | EGXF161E□□121MJ40S |
|                          | 130         | 16×20                 | —                     | —     | 1,500                                                               | EGXF161E□□131ML20S |
|                          | 150         | 12.5×30               | —                     | —     | 1,770                                                               | EGXF161E□□151MK30S |
|                          | 150         | 14.5×25               | —                     | —     | 1,610                                                               | EGXF161E□□151MU25S |
| 200                      | 180         | 12.5×35               | —                     | —     | 1,970                                                               | EGXF161E□□181MK35S |
|                          | 180         | 14.5×30               | —                     | —     | 1,880                                                               | EGXF161E□□181MU30S |
|                          | 180         | 18×20                 | —                     | —     | 1,730                                                               | EGXF161E□□181MM20S |
|                          | 200         | 12.5×40               | —                     | —     | 2,150                                                               | EGXF161E□□201MK40S |
|                          | 200         | 16×25                 | —                     | —     | 1,850                                                               | EGXF161E□□201ML25S |
|                          | 220         | 14.5×35               | —                     | —     | 2,030                                                               | EGXF161E□□221MU35S |
|                          | 240         | 18×25                 | —                     | —     | 2,050                                                               | EGXF161E□□241MM25S |
|                          | 270         | 14.5×40               | —                     | —     | 2,250                                                               | EGXF161E□□271MU40S |
|                          | 36          | 10×20                 | —                     | —     | 900                                                                 | EGXF201E□□360MJ20S |
|                          | 43          | 10×25                 | —                     | —     | 1,200                                                               | EGXF201E□□430MJ25S |
|                          | 56          | 12.5×20               | —                     | —     | 1,220                                                               | EGXF201E□□560MK20S |
|                          | 62          | 10×30                 | —                     | —     | 1,410                                                               | EGXF201E□□620MJ30S |
| 250                      | 75          | 10×35                 | —                     | —     | 1,600                                                               | EGXF201E□□750MJ35S |
|                          | 75          | 14.5×20               | —                     | —     | 1,340                                                               | EGXF201E□□750MU20S |
|                          | 82          | 10×40                 | —                     | —     | 1,790                                                               | EGXF201E□□820MJ40S |
|                          | 82          | 12.5×25               | —                     | —     | 1,510                                                               | EGXF201E□□820MK25S |
|                          | 100         | 12.5×30               | —                     | —     | 1,770                                                               | EGXF201E□□101MK30S |
|                          | 100         | 16×20                 | —                     | —     | 1,500                                                               | EGXF201E□□101ML20S |
|                          | 110         | 14.5×25               | —                     | —     | 1,610                                                               | EGXF201E□□111MU25S |
|                          | 130         | 12.5×35               | —                     | —     | 1,970                                                               | EGXF201E□□131MK35S |
|                          | 130         | 14.5×30               | —                     | —     | 1,880                                                               | EGXF201E□□131MU30S |
|                          | 130         | 18×20                 | —                     | —     | 1,730                                                               | EGXF201E□□131MM20S |
|                          | 150         | 12.5×40               | —                     | —     | 2,150                                                               | EGXF201E□□151MK40S |
|                          | 150         | 16×25                 | —                     | —     | 1,850                                                               | EGXF201E□□151ML25S |
| 350                      | 160         | 14.5×35               | —                     | —     | 2,030                                                               | EGXF201E□□161MU35S |
|                          | 180         | 18×25                 | —                     | —     | 2,050                                                               | EGXF201E□□181MM25S |
|                          | 200         | 14.5×40               | —                     | —     | 2,250                                                               | EGXF201E□□201MU40S |
|                          | 24          | 10×20                 | —                     | —     | 900                                                                 | EGXF251E□□240MJ20S |
|                          | 30          | 10×25                 | —                     | —     | 1,200                                                               | EGXF251E□□300MJ25S |
|                          | 36          | 12.5×20               | —                     | —     | 1,220                                                               | EGXF251E□□360MK20S |
| 400                      | 39          | 10×30                 | —                     | —     | 1,410                                                               | EGXF251E□□390MJ30S |
|                          | 47          | 10×35                 | —                     | —     | 1,600                                                               | EGXF251E□□470MJ35S |
|                          | 51          | 12.5×25               | —                     | —     | 1,510                                                               | EGXF251E□□510MK25S |
|                          | 51          | 14.5×20               | —                     | —     | 1,340                                                               | EGXF251E□□510MU20S |
|                          | 56          | 10×40                 | —                     | —     | 1,790                                                               | EGXF251E□□560MJ40S |
|                          | 62          | 16×20                 | —                     | —     | 1,500                                                               | EGXF251E□□620ML20S |
|                          | 68          | 12.5×30               | —                     | —     | 1,770                                                               | EGXF251E□□680MK30S |
|                          | 68          | 14.5×25               | —                     | —     | 1,610                                                               | EGXF251E□□680MU25S |
|                          | 82          | 12.5×35               | —                     | —     | 1,970                                                               | EGXF251E□□820MK35S |
|                          | 82          | 18×20                 | —                     | —     | 1,730                                                               | EGXF251E□□820MM20S |
|                          | 91          | 14.5×30               | —                     | —     | 1,880                                                               | EGXF251E□□910MU30S |
|                          | 91          | 16×25                 | —                     | —     | 1,850                                                               | EGXF251E□□910ML25S |
| 450                      | 100         | 12.5×40               | —                     | —     | 2,150                                                               | EGXF251E□□101MK40S |
|                          | 100         | 14.5×35               | —                     | —     | 2,030                                                               | EGXF251E□□101MU35S |
|                          | 120         | 18×25                 | —                     | —     | 2,050                                                               | EGXF251E□□121MM25S |
|                          | 130         | 14.5×40               | —                     | —     | 2,250                                                               | EGXF251E□□131MU40S |
|                          | 16          | 10×20                 | —                     | —     | 460                                                                 | EGXF351E□□160MJ20S |
|                          | 20          | 10×25                 | —                     | —     | 610                                                                 | EGXF351E□□200MJ25S |
|                          | 24          | 12.5×20               | —                     | —     | 680                                                                 | EGXF351E□□240MK20S |
|                          | 27          | 10×30                 | —                     | —     | 720                                                                 | EGXF351E□□270MJ30S |
|                          | 33          | 10×35                 | —                     | —     | 820                                                                 | EGXF351E□□330MJ35S |
|                          | 33          | 14.5×20               | —                     | —     | 870                                                                 | EGXF351E□□330MU20S |
|                          | 36          | 10×40                 | —                     | —     | 940                                                                 | EGXF351E□□360MJ40S |
|                          | 36          | 12.5×25               | —                     | —     | 980                                                                 | EGXF351E□□360MK25S |
| 500                      | 43          | 16×20                 | —                     | —     | 970                                                                 | EGXF351E□□430ML20S |
|                          | 47          | 12.5×30               | —                     | —     | 1,210                                                               | EGXF351E□□470MK30S |
|                          | 47          | 14.5×25               | —                     | —     | 1,210                                                               | EGXF351E□□470MU25S |
|                          | 56          | 12.5×35               | —                     | —     | 1,330                                                               | EGXF351E□□560MK35S |
|                          | 56          | 16×25                 | —                     | —     | 1,130                                                               | EGXF351E□□560ML25S |
|                          | 56          | 18×20                 | —                     | —     | 1,060                                                               | EGXF351E□□560MM20S |
|                          | 62          | 14.5×30               | —                     | —     | 1,410                                                               | EGXF351E□□620MJ30S |
|                          | 68          | 12.5×40               | —                     | —     | 1,450                                                               | EGXF351E□□680MK40S |
|                          | 68          | 14.5×35               | —                     | —     | 1,590                                                               | EGXF351E□□680MJ35S |
|                          | 75          | 18×25                 | —                     | —     | 1,200                                                               | EGXF351E□□750MM25S |
|                          | 91          | 14.5×40               | —                     | —     | 1,820                                                               | EGXF351E□□910MU40S |
|                          | 12          | 10×20                 | —                     | —     | 460                                                                 | EGXF401E□□120MJ20S |
| 550                      | 16          | 10×25                 | —                     | —     | 610                                                                 | EGXF401E□□160MJ25S |
|                          | 20          | 10×30                 | —                     | —     | 720                                                                 | EGXF401E□□200MJ30S |
|                          | 20          | 12.5×20               | —                     | —     | 680                                                                 | EGXF401E□□200MK20S |
|                          | 24          | 10×35                 | —                     | —     | 820                                                                 | EGXF401E□□240MJ35S |
|                          | 24          | 14.5×20               | —                     | —     | 870                                                                 | EGXF401E□□240MU20S |
|                          | 27          | 12.5×25               | —                     | —     | 980                                                                 | EGXF401E□□270MK25S |
|                          | 30          | 10×40                 | —                     | —     | 940                                                                 | EGXF401E□□300MJ40S |
|                          | 33          | 16×20                 | —                     | —     | 970                                                                 | EGXF401E□□330ML20S |
|                          | 36          | 12.5×30               | —                     | —     | 1,210                                                               | EGXF401E□□360MK30S |
|                          | 36          | 14.5×25               | —                     | —     | 1,210                                                               | EGXF401E□□360MU25S |
|                          | 43          | 12.5×35               | —                     | —     | 1,330                                                               | EGXF401E□□430MK35S |
|                          | 43          | 18×20                 | —                     | —     | 1,060                                                               | EGXF401E□□430MM20S |
| 600                      | 47          | 14.5×30               | —                     | —     | 1,410                                                               | EGXF401E□□470MU30S |
|                          | 47          | 16×25                 | —                     | —     | 1,130                                                               | EGXF401E□□470ML25S |
|                          | 51          | 12.5×40               | —                     | —     | 1,450                                                               | EGXF401E□□510MK40S |
|                          | 56          | 14.5×35               | —                     | —     | 1,590                                                               | EGXF401E□□560MJ35S |
|                          | 62          | 18×25                 | —                     | —     | 1,200                                                               | EGXF401E□□620MM25S |
|                          | 68          | 14.5×40               | —                     | —     | 1,820                                                               | EGXF401E□□680MU40S |

□ □ : Enter the appropriate lead forming or taping code.

## ◆RATED RIPLE CURRENT MULTIPLIERS

## ●Frequency Multipliers

(25 to 100V<sub>dc</sub>)

| Capacitance(μF) | Frequency(Hz) | 120  | 1k   | 10k  | 100k |
|-----------------|---------------|------|------|------|------|
| 130 to 240      |               | 0.40 | 0.82 | 0.93 | 1.00 |
| 270 to 560      |               | 0.50 | 0.85 | 0.94 | 1.00 |
| 620 to 2,000    |               | 0.60 | 0.87 | 0.95 | 1.00 |
| 2,200 to 4,300  |               | 0.75 | 0.90 | 0.95 | 1.00 |
| 4,700 to 11,000 |               | 0.85 | 0.95 | 0.98 | 1.00 |

(160 to 400V<sub>dc</sub>)

| Capacitance(μF) | Frequency(Hz) | 50   | 120  | 300  | 1k   | 10k  | 100k |
|-----------------|---------------|------|------|------|------|------|------|
| 12 to 33        |               | 0.15 | 0.30 | 0.45 | 0.65 | 0.95 | 1.00 |
| 36 to 270       |               | 0.25 | 0.35 | 0.50 | 0.70 | 0.96 | 1.00 |

Please contact us for lifetime estimation.