



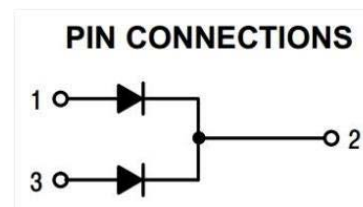
## Features

- Low forward voltage drop
- High efficiency and low power loss
- High volume of current and good capability of surge current



## Application

- Freewheeling diodes
- DC/DC converters



## Maximum Ratings (Ta=25°C unless otherwise noted)

| Symbol     | Parameters                                             | Ratings | Unit |
|------------|--------------------------------------------------------|---------|------|
| $V_{RRM}$  | Repetitive Peak Reverse Voltage                        | 100     | V    |
| $V_{RWM}$  | Working peak reverse voltage                           | 100     | V    |
| $V_R$      | Maximum DC blocking voltage                            | 100     | V    |
| $I_F (AV)$ | Maximum average forward rectified current Total device | 20      | A    |
| $I_{FSM}$  | Peak Forward Surge Current                             | 150     | A    |
| $T_j$      | Operating junction temperature range                   | 175     | °C   |
| $T_{stg}$  | Storage temperature range                              | -55~175 | °C   |

## Electrical Characteristics (Ta=25°C unless otherwise specified)

| Symbol        | Parameters                                     | Min | Typ  | Max   | Units | Conditions                                               |
|---------------|------------------------------------------------|-----|------|-------|-------|----------------------------------------------------------|
| $I_R$         | Maximum Reverse Leakage Current (Note 1)       | --  | --   | 15    | uA    | $V_R = V_{RRM}$<br>$T_C = 25\text{ }^{\circ}\text{C}$    |
| $V_F$         | Maximum Instantaneous Forward Voltage (Note 2) | --  | 0.83 | 0.85  | V     | $I_F = 10\text{ A}$ , $T_C = 25\text{ }^{\circ}\text{C}$ |
| $R_{th(j-c)}$ | Typical Thermal Resistance, Junction to Case   | --  | --   | 3.0   | °C/W  |                                                          |
| dV/dt         | Voltage Rate of Change                         | --  | --   | 10000 | V/μs  |                                                          |

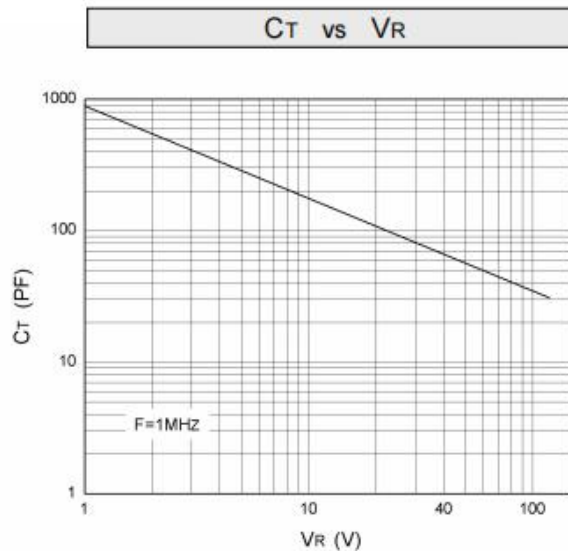
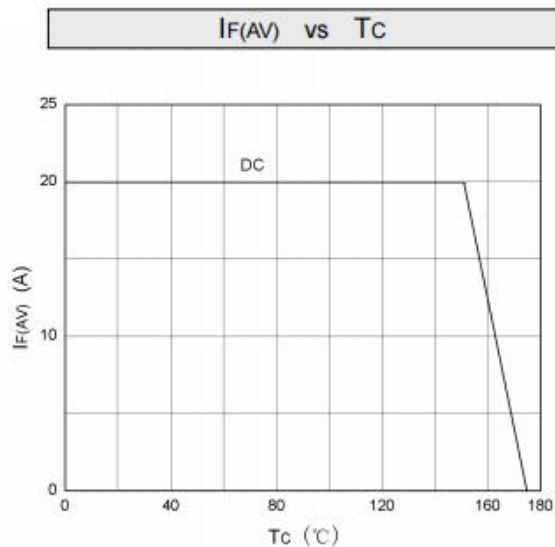
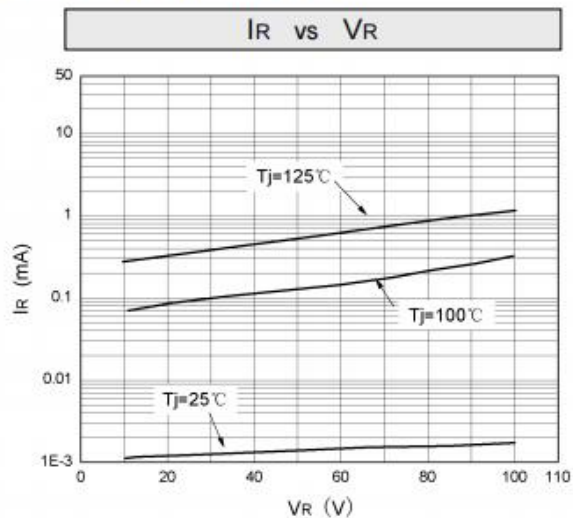
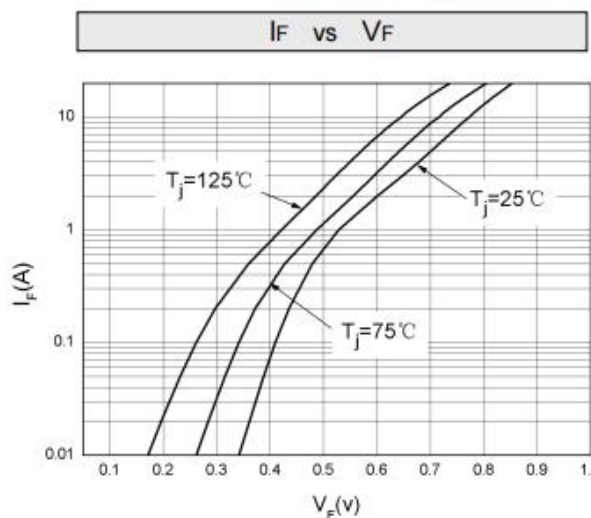
Note 1: 2.0uS Pulse Width, f=1.0KHz

Note 2: Pulse Test : 300us Pulse Width, 1% Duty Cycle



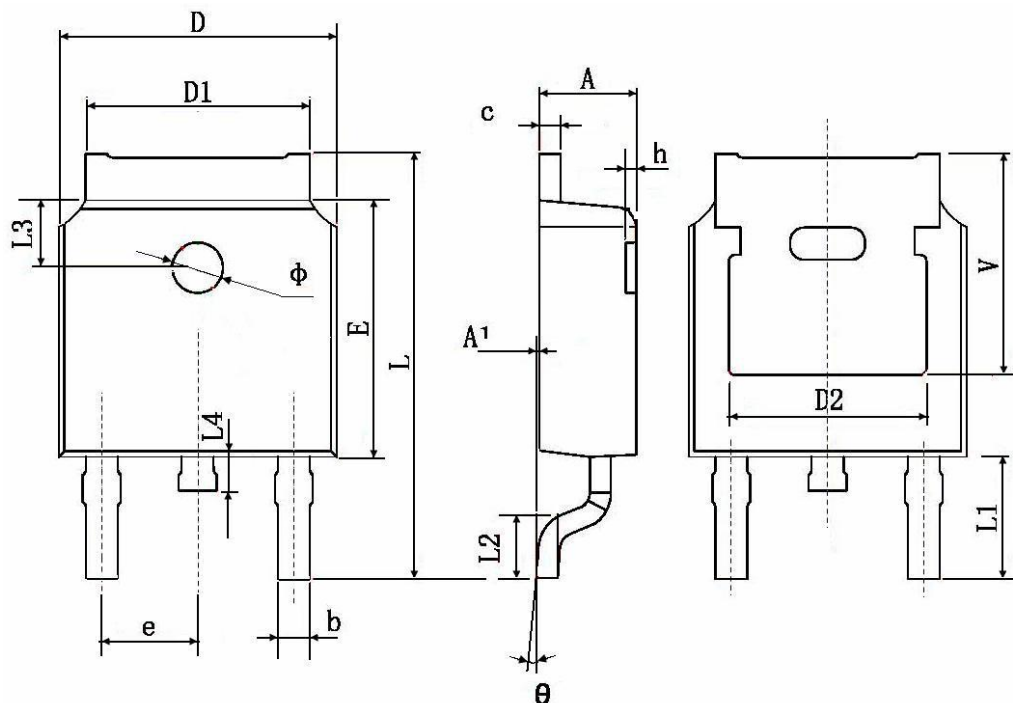
## Typical Characteristics

### ELECTRICAL CHARACTERISTICS (curves)





## TO-252-2L Package Information



| Symbol | Dimensions In Millimeters |        | Dimensions In Inches |       |
|--------|---------------------------|--------|----------------------|-------|
|        | Min.                      | Max.   | Min.                 | Max.  |
| A      | 2.200                     | 2.400  | 0.087                | 0.094 |
| A1     | 0.000                     | 0.127  | 0.000                | 0.005 |
| b      | 0.660                     | 0.860  | 0.026                | 0.034 |
| c      | 0.460                     | 0.580  | 0.018                | 0.023 |
| D      | 6.500                     | 6.700  | 0.256                | 0.264 |
| D1     | 5.100                     | 5.460  | 0.201                | 0.215 |
| D2     | 0.483 TYP.                |        | 0.190 TYP.           |       |
| E      | 6.000                     | 6.200  | 0.236                | 0.244 |
| e      | 2.186                     | 2.386  | 0.086                | 0.094 |
| L      | 9.800                     | 10.400 | 0.386                | 0.409 |
| L1     | 2.900 TYP.                |        | 0.114 TYP.           |       |
| L2     | 1.400                     | 1.700  | 0.055                | 0.067 |
| L3     | 1.600 TYP.                |        | 0.063 TYP.           |       |
| L4     | 0.600                     | 1.000  | 0.024                | 0.039 |
| Φ      | 1.100                     | 1.300  | 0.043                | 0.051 |
| θ      | 0°                        | 8°     | 0°                   | 8°    |
| h      | 0.000                     | 0.300  | 0.000                | 0.012 |
| V      | 5.350 TYP.                |        | 0.211 TYP.           |       |



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