

# S-SM340C

Surface Mount Schottky Barrier Rectifiers  
Reverse Voltage 40V Forward Current 3.0A

## 1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Low power loss,high efficiency.
- For use in low voltage high frequency inverters,free wheeling, and polarity protection applications.
- High temperature soldering guaranteed:260°C/10 seconds.
- Weight: 0.26g
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



## 2. DEVICE MARKING AND ORDERING INFORMATION

| Device   | Marking | Shipping       |
|----------|---------|----------------|
| S-SM340C | SM340C  | 3000/Tape&Reel |

## 3. MAXIMUM RATINGS(Ta = 25°C)

| Parameter                                                                                        | Symbol   | Limits    | Unit |
|--------------------------------------------------------------------------------------------------|----------|-----------|------|
| Maximum repetitive peak reverse voltage                                                          | VRRM     | 40        | V    |
| Maximum RMS voltage                                                                              | VRMS     | 14        | V    |
| Maximum DC blocking voltage                                                                      | VDC      | 20        | V    |
| Maximum average forward rectified current at TC = 75°C                                           | IF(AV)   | 3         | A    |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | IFSM     | 140       | A    |
| Typical thermal resistance (Note 1)                                                              | RθJA     | 80        | °C/W |
|                                                                                                  | RθJC     | 20        |      |
| Operating junction and storage temperature range                                                 | TJ, TSTG | -50 ~+150 | °C   |

## 4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

| Characteristic                                                               | Symbol | Min. | Typ. | Max.      | Unit |
|------------------------------------------------------------------------------|--------|------|------|-----------|------|
| Maximum instantaneous forward voltage at 3.0A                                | VF     | -    | -    | 0.55      | V    |
| Maximum DC reverse current TA = 25°C at rated DC blocking voltage TJ = 125°C | IR     | -    | -    | 0.5<br>10 | mA   |
| Typical junction capacitance at 4.0V, 1MHz                                   | CJ     | -    | 300  | -         | PF   |

1. Mounted on 0.31 x 0.31" (8.0 x 8.0mm) copper pads to each terminal
2. IF = 0.5A, IR = 1.0A, IRR = 0.25A

## 5. ELECTRICAL CHARACTERISTICS CURVES

Fig. 1 - Forward Current Derating Curve

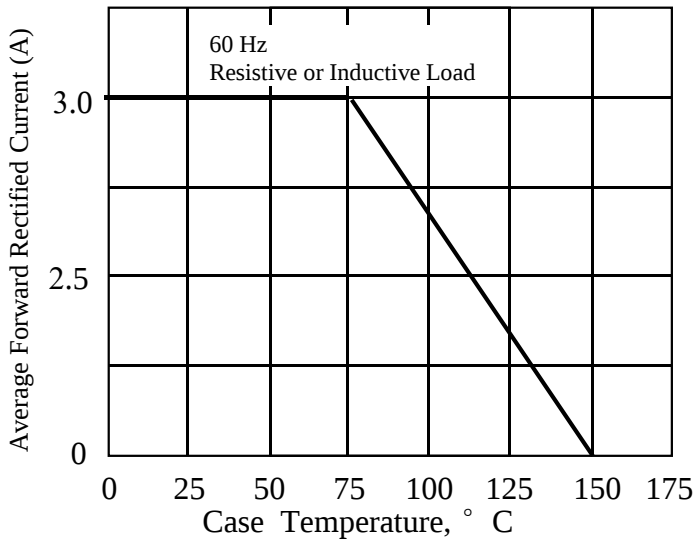


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

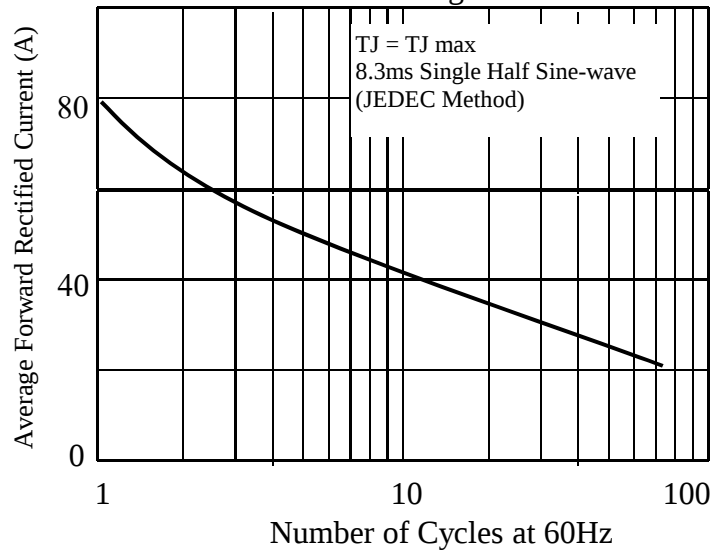


Fig. 3 - Typical Instantaneous Forward Characteristics

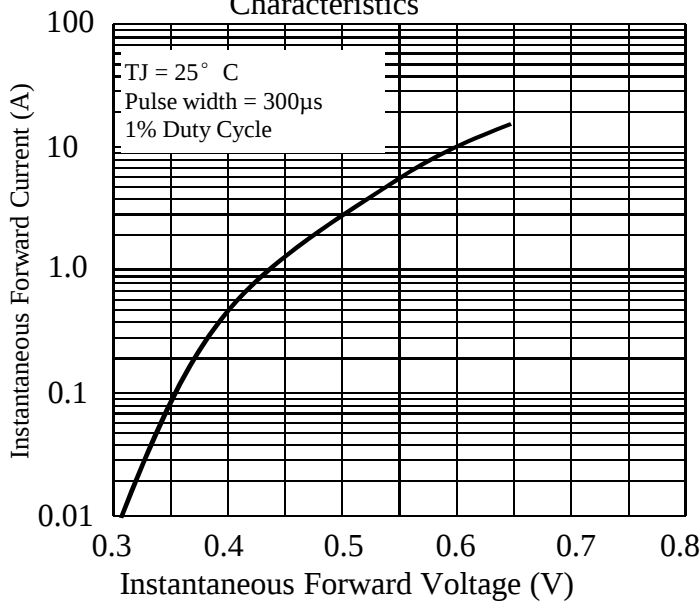


Fig. 4 - Typical Reverse Characteristics

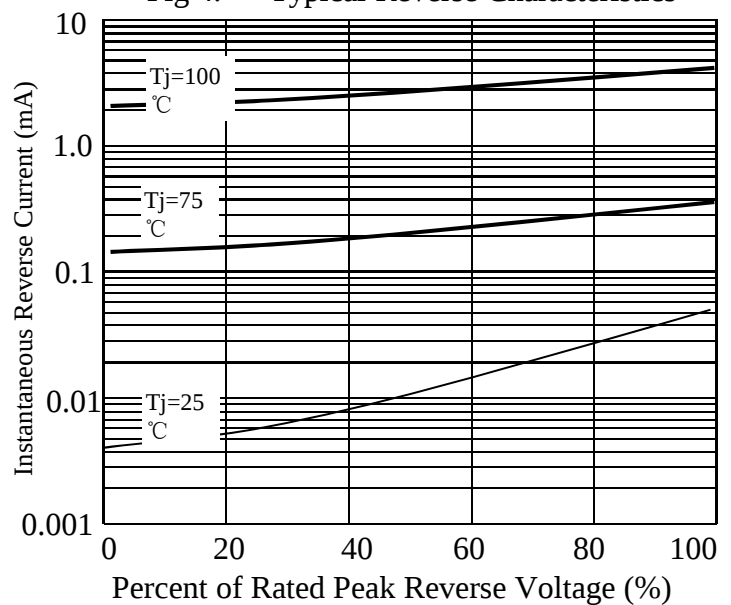
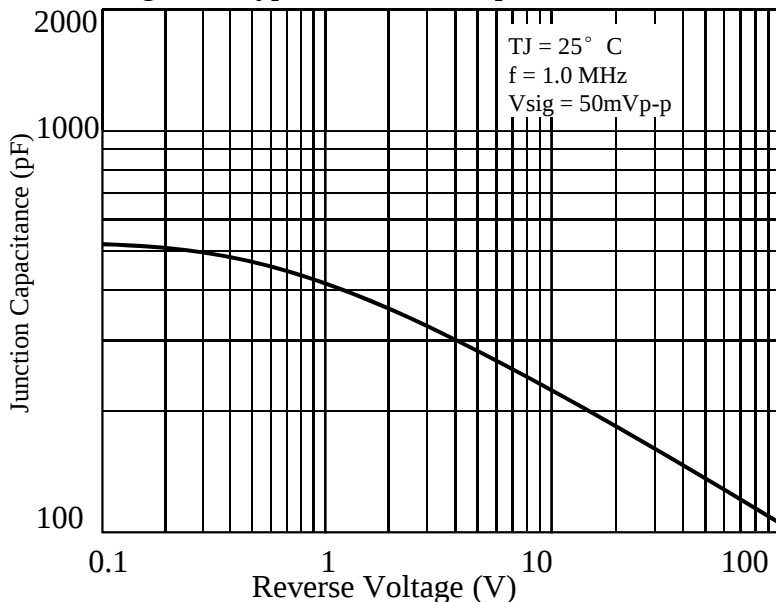
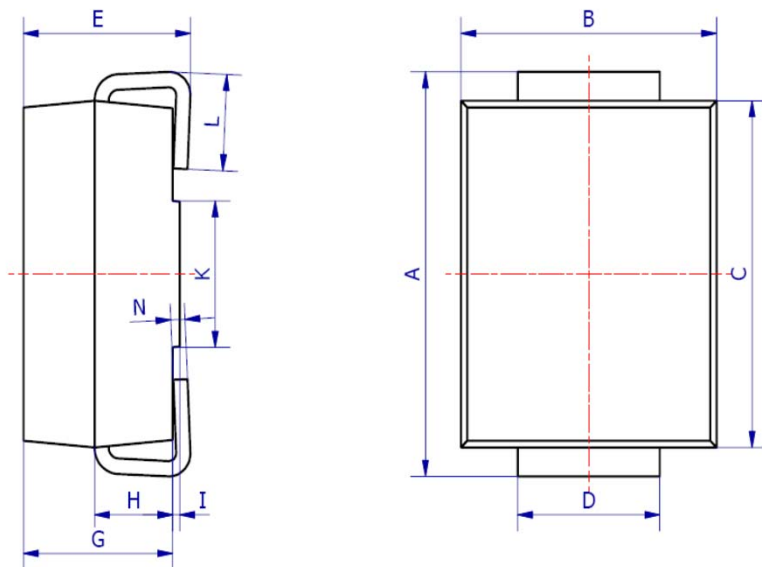


Fig. 5 - Typical Junction Capacitance

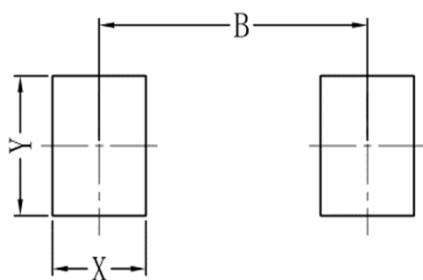


## 6.OUTLINE AND DIMENSIONS



| SMC                  |      |      |      |
|----------------------|------|------|------|
| DIM                  | Min  | Max  | Typ. |
| A                    | 7.70 | 8.30 | 8.00 |
| B                    | 5.85 | 6.25 | 6.05 |
| C                    | 6.65 | 7.05 | 6.85 |
| D                    | 2.80 | 3.20 | 3.00 |
| E                    | 2.45 | 2.85 | 2.65 |
| G                    | 2.10 | 2.50 | 2.30 |
| H                    | 1.00 | 1.40 | 1.20 |
| I                    | 0.05 | 0.15 | 0.10 |
| K                    | 4.30 | 4.70 | 4.50 |
| L                    | 1.00 | 1.50 | 1.25 |
| N                    | 0.10 | 0.30 | 0.20 |
| All Dimensions in mm |      |      |      |

## 7.SOLDERING FOOTPRINT



| SMC |      |
|-----|------|
| DIM | (mm) |
| X   | 1.60 |
| Y   | 3.30 |
| B   | 6.60 |