

Surface Mount Schottky Barrier Rectifiers

(Pb) Lead(Pb)-Free

Feature:

- *For Surface Mount Application
- *Metal-Semiconductor Junction With Guardring
- *Epitaxial Construction
- *Very Low Forward Voltage Drop
- *High Current Capability
- *Plastic Material Has UL Flammability Classification 94V-0
- *For Use In Low , And Polarity Protection Applications

Mechanical Data

- * Case : Molded Plastic
- * Polarity : Indicated by cathode band
- * Weight : 0.231 grams

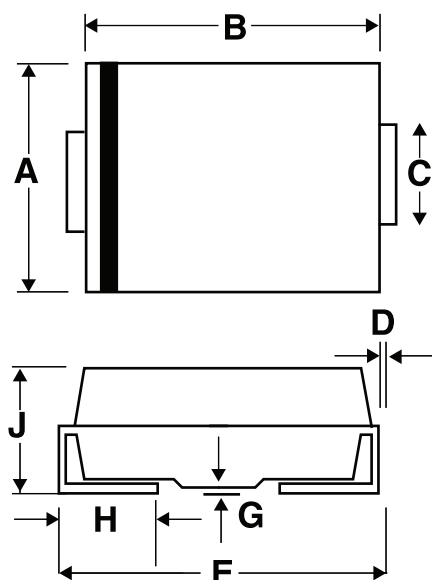
REVERSE VOLTAGE
20 TO 200 VOLTS
FORWARD CURRENT
3.0 AMPERE



SMC(DO-214AB)

SMC Outline Dimension

Unit:mm



| SMC | | |
|----------|-------------|-------------|
| Dim | Min | Max |
| A | 5.59 | 6.22 |
| B | 6.60 | 7.11 |
| C | 2.75 | 3.18 |
| D | 0.15 | 0.31 |
| E | 7.75 | 8.13 |
| G | 0.10 | 0.20 |
| H | 0.76 | 1.52 |
| J | 2.00 | 2.62 |

Maximum Ratings and Electrical Characteristics

Rating 25°C Ambient Temperature Unless Otherwise Specified.

Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

| PARAMETER | SYMBOL | B320 | B330 | B340 | B350 | B360 | B380 | B3100 | B3150 | B3200 | UNIT | |
|--|-----------------|-------------|------|------|------|------|------|-------|-------|-------|------|----|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | V | |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | V | |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | V | |
| Maximum average forward rectified current | I_F | 3.0 | | | | | | | | | A | |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 80.0 | | | | | | | | | A | |
| Maximum instantaneous $I_F=3A$ @ 25°C | V_F | 0.50 | | | 0.70 | | 0.85 | | 0.87 | 0.90 | V | |
| Maximum DC reverse current @ TA=25°C at rated DC blocking voltage @ TA=100°C | I_R | 0.5 | | | | | 0.2 | | | | | mA |
| | | 10.0 | | | | | 5.0 | | | | | |
| Typical junction capacitance | C_J | 180 | | | 150 | | 110 | | 100 | 80 | pF | |
| Typical thermal resistance | $R_{\theta JA}$ | 70 | | | | | | | | | °C/W | |
| | $R_{\theta JC}$ | 30 | | | | | | | | | | |
| Operating temperature range | T_J | -55 to +125 | | | | | | | | | °C | |
| Storage temperature range | T_{STG} | -55 to +150 | | | | | | | | | °C | |

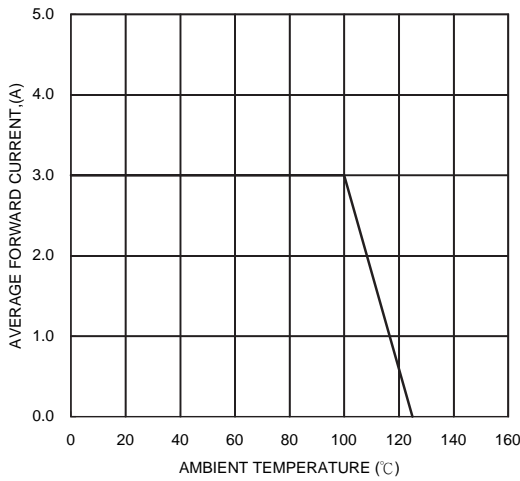


FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

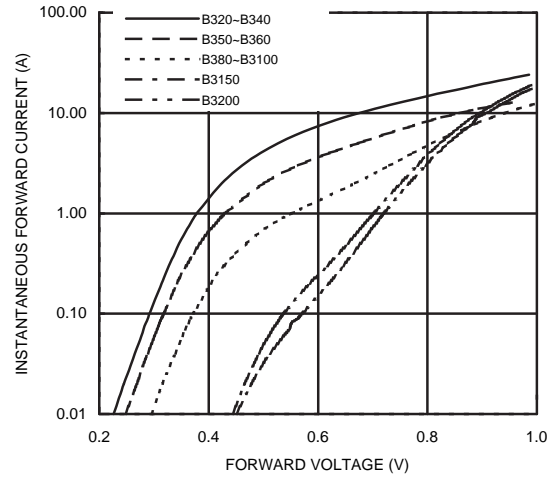


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

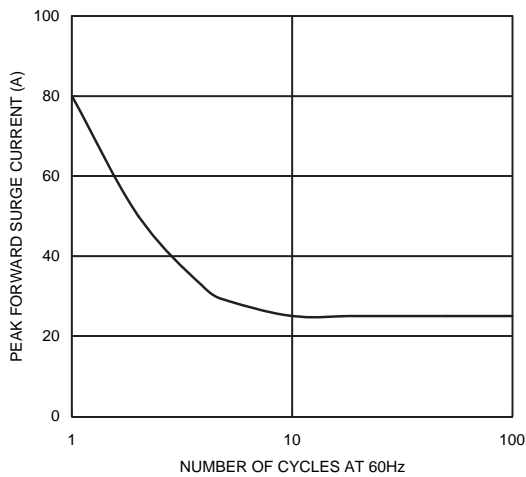


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

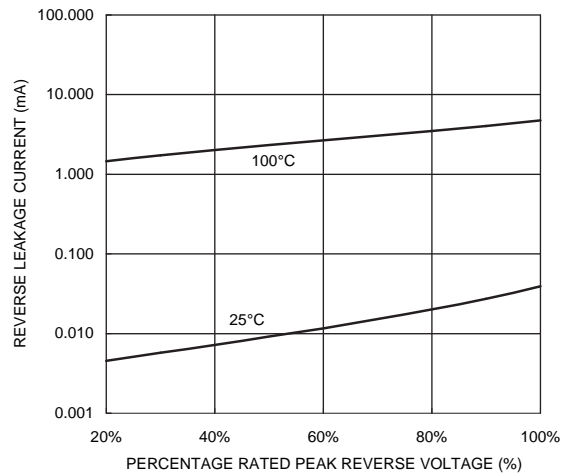


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

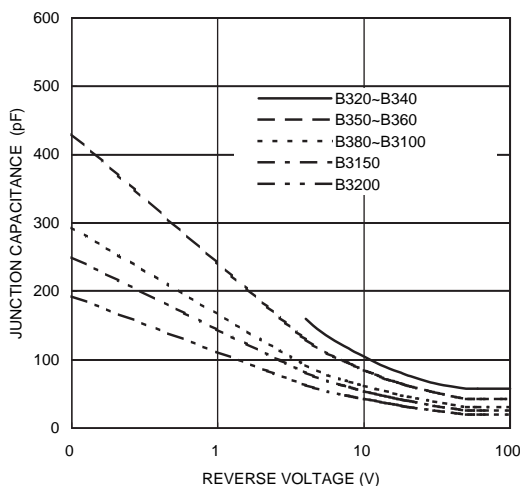


FIG. 5-TYPICAL JUNCTION CAPACITANCE