

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 20 - 100 V
FORWARD CURRENT: 3.0 A

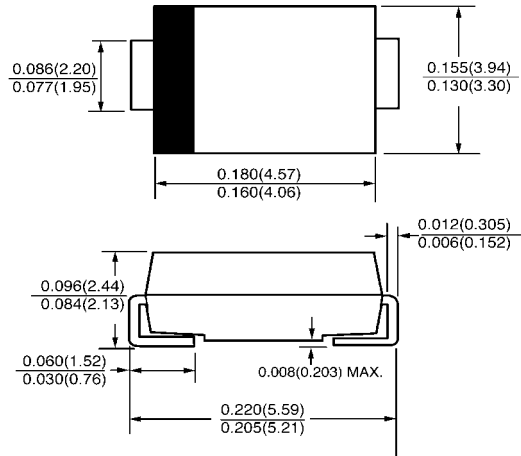
FEATURES

- ◇ Schottky barrier rectifier
- ◇ Guardring protection
- ◇ Low forward voltage
- ◇ Reverse energy tested
- ◇ High current capability
- ◇ Extremely low thermal resistance

MECHANICAL DATA

- ◇ Case: SMB molded plastic body
- ◇ Polarity: Color band denotes cathode end
- ◇ Mounting position: ANY
- ◇ Weight: 0.003 ounces, 0.093 gram

SMB



inch(mm)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | | SK32B | SK33B | SK34B | SK35B | SK36B | SK38B | SK39B | SK3A0B | UNITS | |
|---|-----------------|----------------|-------|-------|-------|-------|-------|-------|--------|---------------------------|----|
| Device marking code | | SK32B | SK33B | SK34B | SK35B | SK36B | SK38B | SK39B | SK3A0B | | |
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V | |
| Maximum RMS voltage | V_{RWS} | 14 | 21 | 28 | 35 | 42 | 56 | 63 | 70 | V | |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 90 | 100 | V | |
| Maximum average forward rectified current at $T_L=90^\circ\text{C}$ | $I_{F(AV)}$ | 3.0 | | | | | | | | A | |
| Peak forward surge current 8.3ms single half-sine-wave | I_{FSM} | 100.0 | | | | | | | | A | |
| Maximum instantaneous forward voltage at $I_{FM}=3.0\text{A}$ (NOTE1) | V_F | 0.50 | | | 0.70 | | 0.85 | | | V | |
| Maximum DC reverse current $T_J=25^\circ\text{C}$ at rated DC blocking voltage $T_J=100^\circ\text{C}$ | I_R | 0.5 | | | | 20.0 | | | | | mA |
| Maximum thermal resistance | $R_{\theta JL}$ | 17.0 | | | | | | | | $^\circ\text{C}/\text{W}$ | |
| Operating temperature range | T_J | - 55 ---- +125 | | | | | | | | $^\circ\text{C}$ | |
| Storage temperature range | T_{STG} | - 55 ---- +150 | | | | | | | | $^\circ\text{C}$ | |

NOTE: 1.Pulse test: Pulse width 300us,duty cycle 1 %

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FIG.1 – FORWARD DERATING CURVE

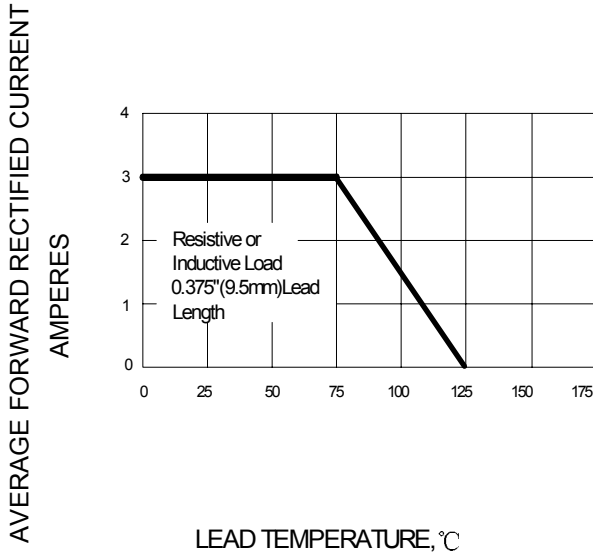


FIG.2 – PEAK FORWARD SURGE CURRENT

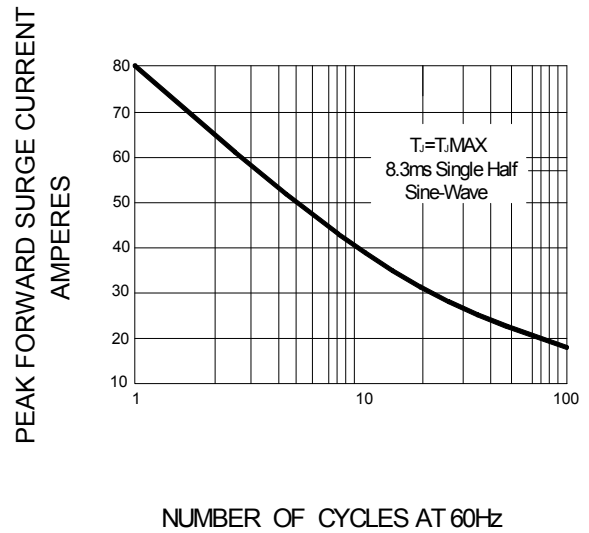


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

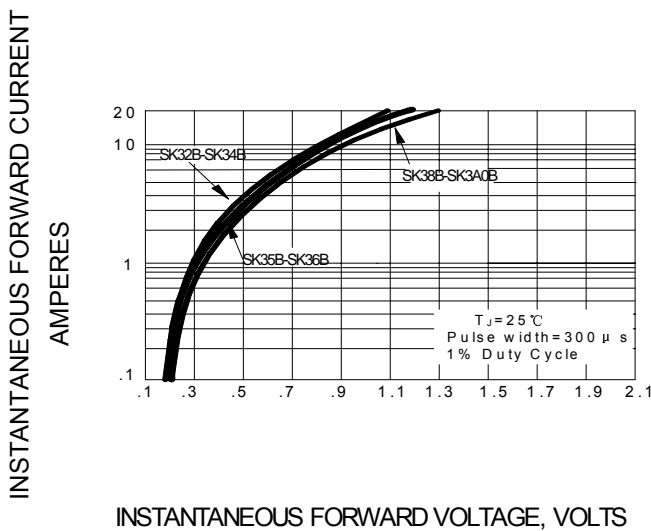


FIG.4 – TYPICAL JUNCTION CAPACITANCE

