

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 20 - 100 V
FORWARD CURRENT: 1.0 A

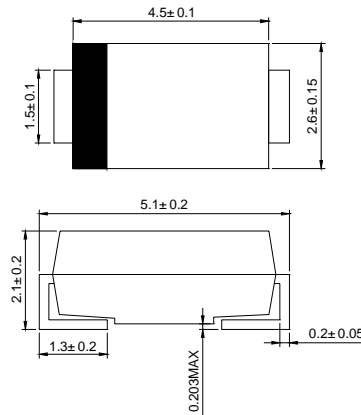
FEATURES

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

MECHANICAL DATA

- ◇ Case: SMA molded plastic body
- ◇ Polarity: Color band denotes cathode end
- ◇ Mounting position: ANY
- ◇ Weight: 0.002 ounces, 0.064 gram

(DO-214AC)SMA



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| | | SK12 | SK13 | SK14 | SK15 | SK16 | SK18 | SK19 | SK110 | UNITS |
|---|-----------------|---------------|------|------|------|------|------|------|-------|--------------------|
| Device marking code | | SK12 | SK13 | SK14 | SK15 | SK16 | SK18 | SK19 | SK110 | |
| 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 $T_L=90^\circ\text{C}$ | $I_{F(AV)}$ | 1.0 | | | | | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave | I_{FSM} | 30.0 | | | | | | | | A |
| Maximum instantaneous forward voltage at $I_{FM}=1.0\text{A}$ (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 | | | | | | | | m A |
| Maximum thermal resistance | $R_{\theta JL}$ | 35.0 | | | | | | | | $^\circ\text{C/W}$ |
| 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 %

FIG.1 – FORWARD DERATING CURVE

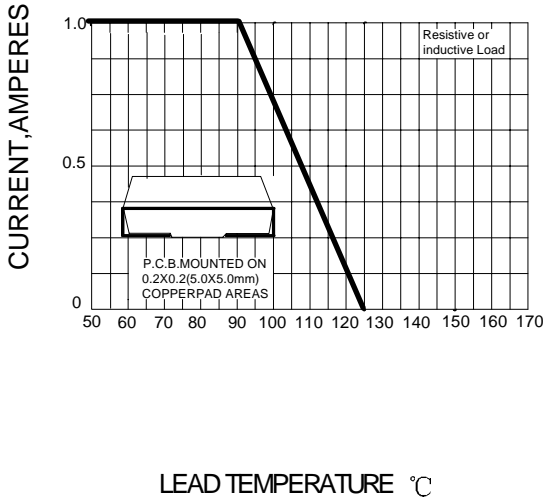


FIG.2– PEAK FORWARD SURGE CURRENT

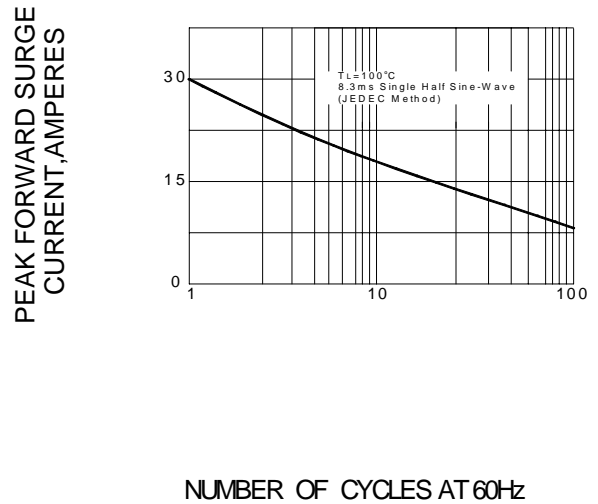


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

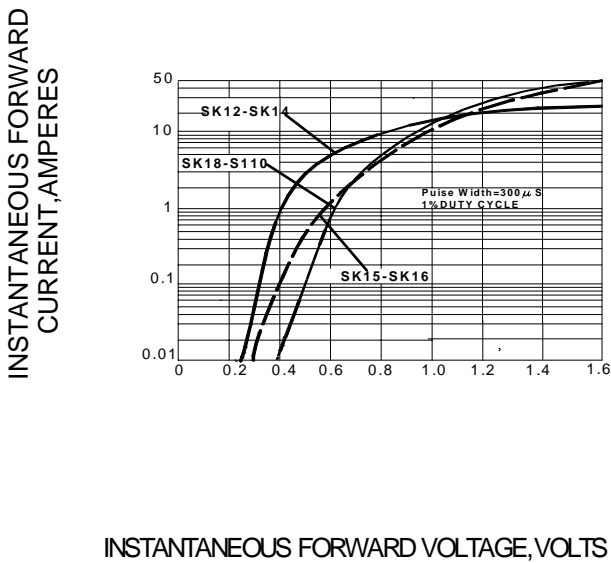


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

