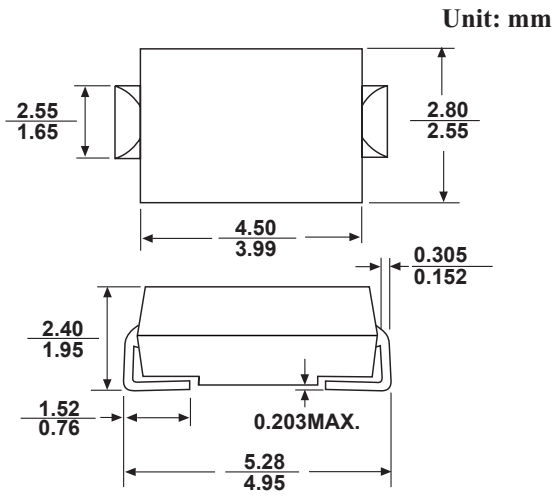
# SMA PLASTIC SILICON RECTIFIERS

## FEATURES

- The plastic package carries Underwrites Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- For surface mounted applications
- Built-in strain relief,ideal for automated placement
- High temperature soldering guaranteed:260℃/10 seconds at Terminals
- Component in accordance to RoHs 2015/863 and WEEE 2012/19/EU

## MECHANICAL DATA

- Case:SMA molded plastic body
- Terminals:Lead solderable per MIL-STD-750,method 2026
- Polarity:Color band denotes cathode end
- Mounting Position:Any




## MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

| Characteristic | | SYMBOLS | S1A | S1B | S1D | S1G | S1J | S1K | S1M | UNITS |
|---|---|---|---|---|---|---|---|---|---|---|
| Maximum recurrent peak reverse voltage<br>Maximum DC blocking voltage | | $V_{RRM}$<br>$V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | | $V_{R(RMS)}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average rectified output current(Note 1)@TA=75℃ | | $I_{(AV)}$ | 1.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load(JEDECmethod) | | $I_{FSM}$ | 30.0 | | | | | | | A |
| Maximum instantaneous forward voltage at 1.0A | | $V_F$ | 1.0 | | | | | | | V |
| Maximum DC reverse current at rated DC blocking voltage | @$T_A$=25°C | $I_{RM}$ | 5.0 | | | | | | | μA |
| | @$T_A$=100°C | | 50.0 | | | | | | | |
| Typical Junction Capacitance(Note 1) | | $C_J$ | 15 | | | | | | | pF |
| Typical thermal resistance (NOTE 2) | | $R_{\theta JA}$ | 85 | | | | | | | ℃/W |
| Operating junction and storage temperature range | | $T_j$ | -55 to+150 | | | | | | | ℃ |

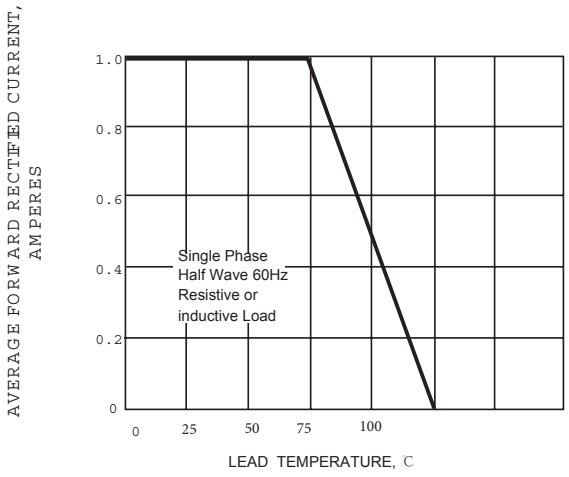
**Note:**

1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

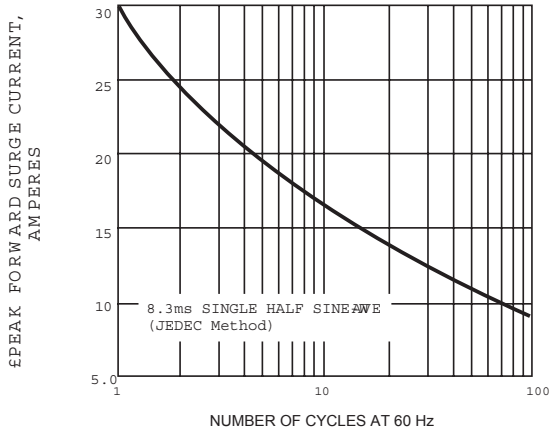
2.Thermal resistance junction to ambient,P.C.B. mounted with 0.2x0.2 ”(5.0x5.0mm) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES

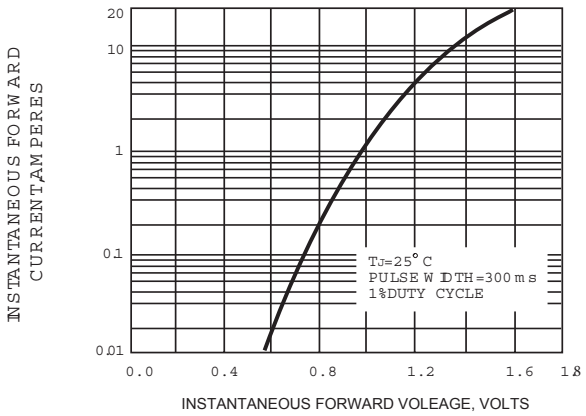
## FIG. 1- FORWARD CURRENT DERATING CURVE



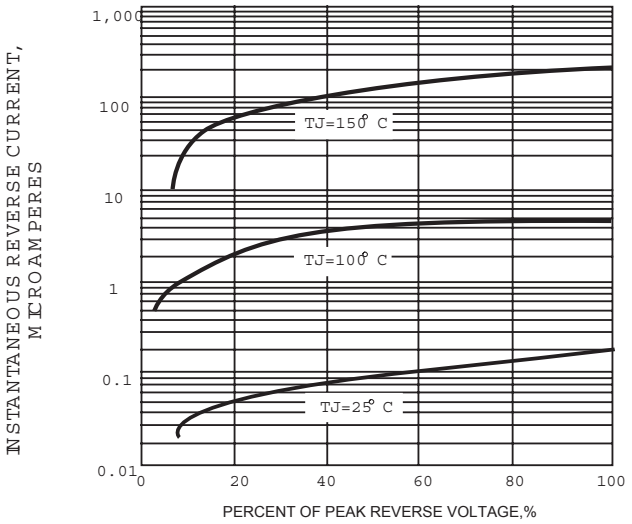

## FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



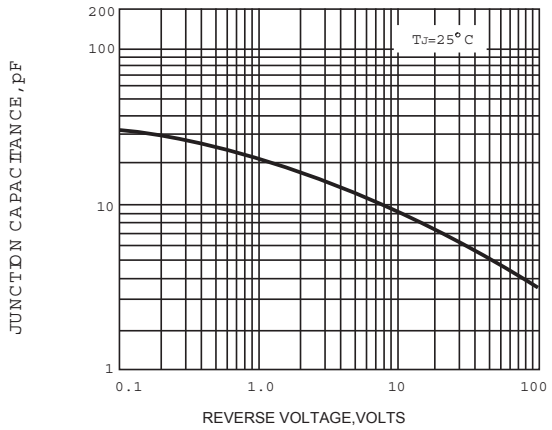

## FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS




## FIG. 4-TYPICAL REVERSE CHARACTERISTICS




## FIG. 5-TYPICAL JUNCTION CAPACITANCE




## F1G.6-TYPCALTRANSIENT THERMAL IMPEDANCE