

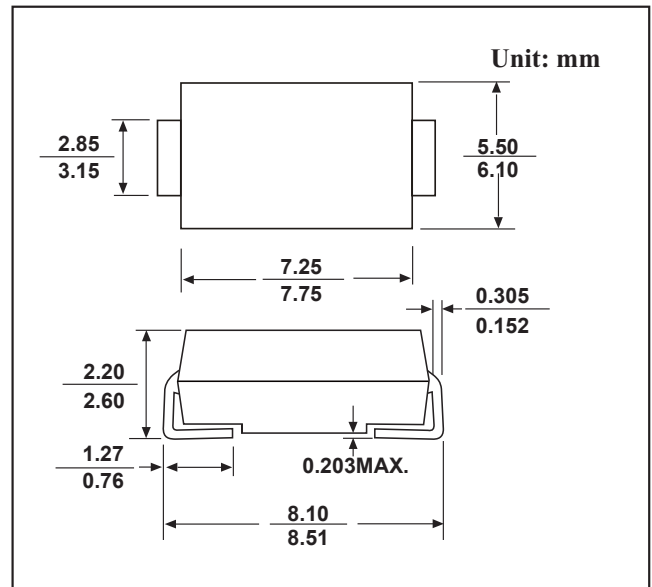
SMC PLASTIC SILICON RECTIFIERS

FEATURES

- The plastic package carries Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Fast switching for high efficiency
- Low reverse leakage
- Built-in strain relief,ideal for automated placement High forward surge current capability
- High temperature soldering guaranteed: 250 °C / 10 seconds at terminals

MECHANICAL DATA

- Case: JEDEC SMA molded plastic body
- Terminals: Plated axial leads, 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)

Parameter	Symbols	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M	UNITS
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	VOLT
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	VOLT
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	VOLT
Maximum average forward rectified current at $T_L=65^{\circ}C$	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	100.0							Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.3							Volt
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^{\circ}C$ $T_a = 125^{\circ}C$	I_R	5.0 50.0							μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	150				250	500		ns
Typical junction capacitance (NOTE 2)	C_J	150.0							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	20.0							$^{\circ}C/W$
Operating junction and storage temperature range	T_j, T_{stg}	-55 to +150							$^{\circ}C$

Note: 1.Measured with $I_F=0.5A$, $I_R=1A$, $I_{rr}=0.25A$.

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

3.Thermal resistance junction to ambient, 6.0 mm² copper pads to each terminal.

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

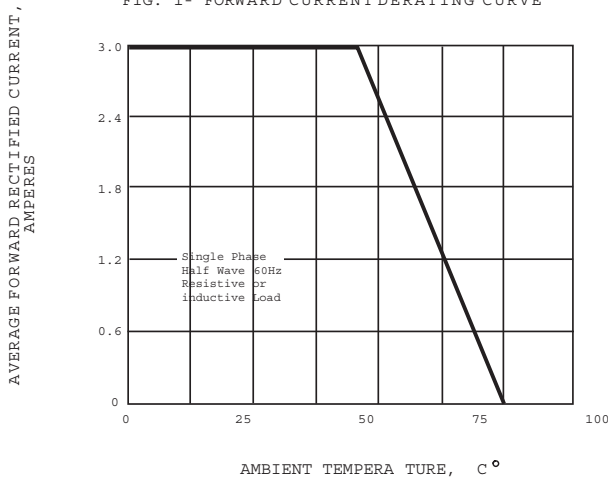


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

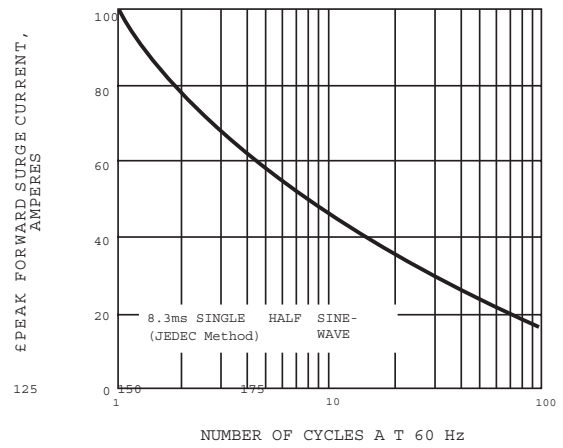


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

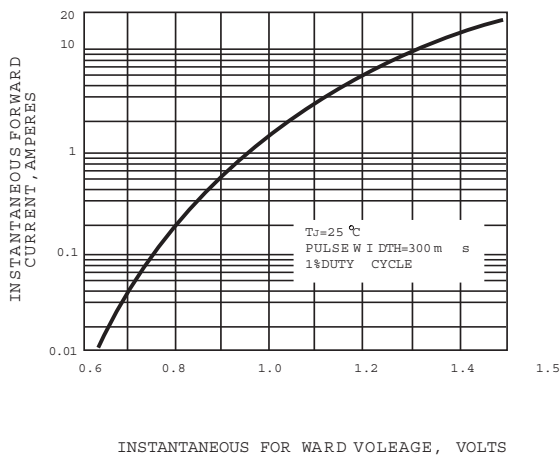


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

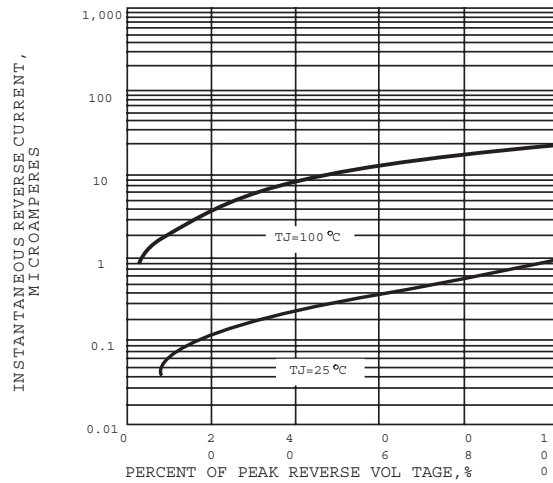


FIG. 5-TYPICAL JUNCTION CAPACITANCE

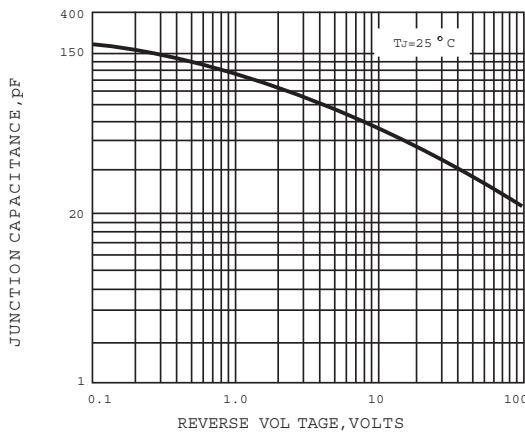


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

