

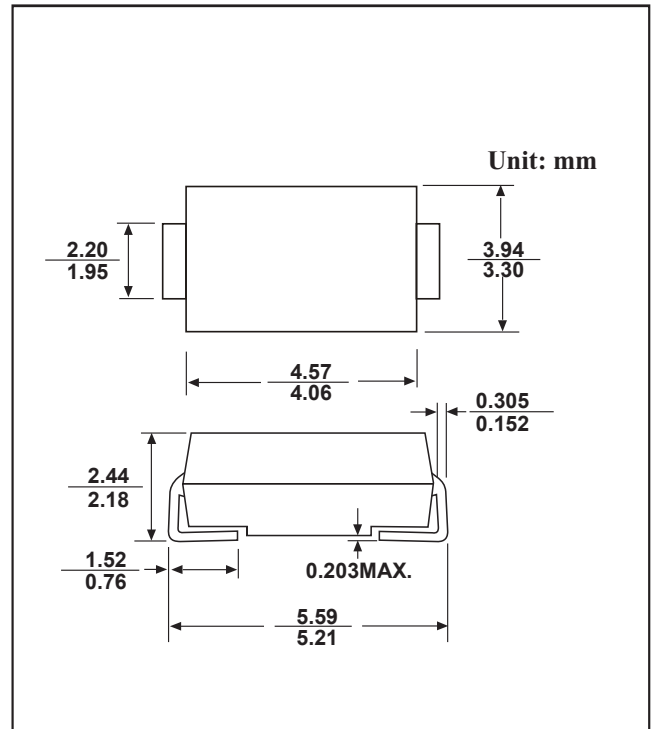
SMB PLASTIC SILICON RECTIFIERS

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing
- Metal silicon junction ,majority carrier conduction
- Built-in strain relief
- For surface mounted applications
- Low power loss ,high efficiency,High surge capability
- High current capability ,Low forward voltage drop
- For use in low voltage ,high frequency inverters, free wheeling and polarity protection applications
- High temperature soldering guaranteed:260 °C/10 seconds at terminals
- Component in accordance to RoHS 2015/863 and WEEE 2012/19/EU

MECHANICAL DATA

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



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

TYPE NUMBER		SYMBOL	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS520	UNITS
Maximum recurrent peak reverse voltage		V_{RRM}	20	30	40	50	60	80	100	200	V
Maximum RMS voltage		V_{RMS}	14	21	28	35	42	57	71	140	V
Maximum DC blocking voltage		V_{DC}	20	30	40	50	60	80	150	200	V
Maximum Average Forward rectified Current 0.375"(9.5mm) lead length		$I_{F(AV)}$	5.0								A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	150.0								A
Maximum instantaneous forward voltage at 5.0 A (Note 1)		V_F	0.55		0.70		0.85		0.95		V
Maximum reverse current at rated DC blocking voltage per diode	@ $T_A=25^\circ\text{C}$	I_R	0.2								mA
	@ $T_A=100^\circ\text{C}$		50.0				10.0				
Typical Thermal Resistance (Note 2)		$R_{\theta JA}$	55.0								°C/W
Typical junction capacitance (Note 3)		C_J	500				400				
Storage Temperature		T_{STG}	- 55 ---- + 150								°C
Operation Junction Temperature		T_J	- 55 ---- + 125								°C

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

2. P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

FIG.1-FORWARD CURRENT DERATING CURVE

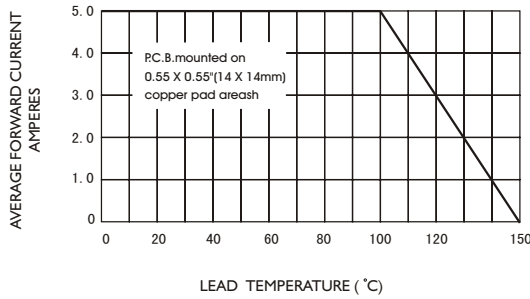


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

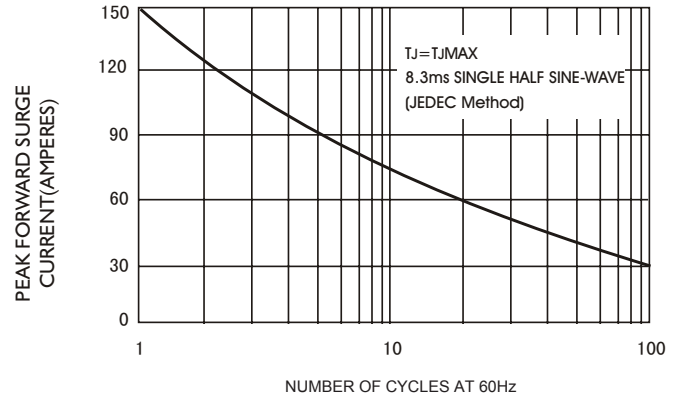


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

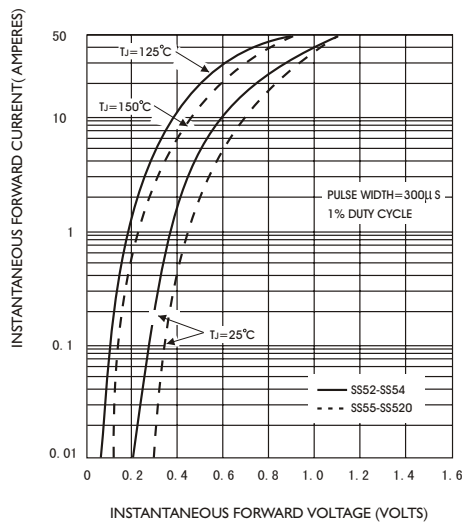


FIG.4-TYPICAL REVERSE CHARACTERISTICS

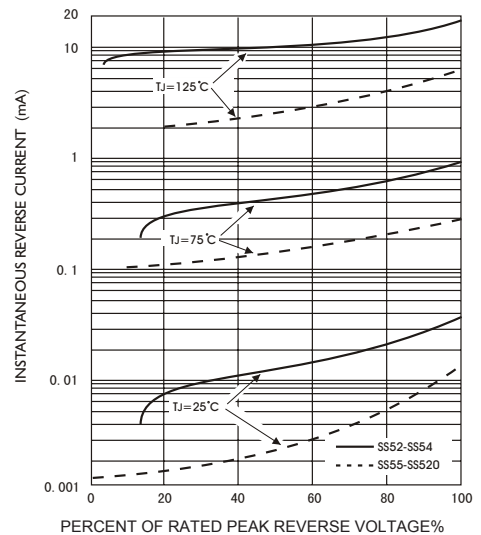


FIG.5-TYPICAL JUNCTION CAPACITANCE

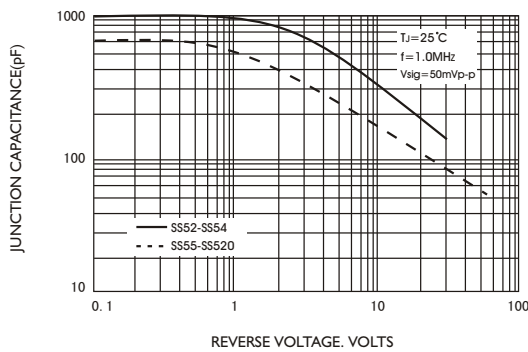


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

