

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Low profile package
- Built-in strain relief ,ideal for automated placement
- 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 2011/65/EU

MECHANICAL DATA

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Weight: 0.003ounce,0.093 gram

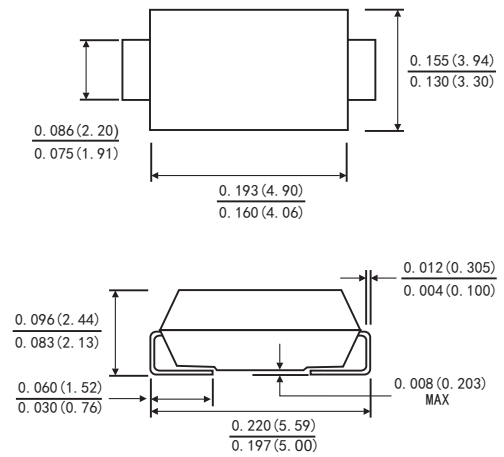
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	SS 52	SS 53	SS 54	SS 56	SS 510	SS 515	SS 520	Units
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	60	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current (see fig.1)	$I_{(AV)}$	5.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated T_J)	I_{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)	V_F	0.50			0.65	0.78	0.85	0.90	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	$T_A=25^\circ\text{C}$	100				20			μA
	$T_A=100^\circ\text{C}$	5				-			mA
	$T_A=125^\circ\text{C}$	-				3			
Typical junction capacitance(Note 3)	C_J	500				400			Pf
Typical thermal resistance (Note 2)	$R_{\theta JA}$	70.0							$^\circ\text{C}/\text{W}$
	$R_{\theta JL}$	25.0							
Operating junction temperature range	T_J	-55 to+150							$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 to+150							$^\circ\text{C}$

- Notes:**
1. Pulse test: 300 μs pulse width,1% duty cycle
 2. P.C.B. mounted 0.55X0.55"(14X14mm) copper pad areas
 3. Measured at 1MHz and reverse voltage of 4.0 volts

SMB(DO-214AA)



Dimensions in inches and (millimeters)

RATINGS AND CHARACTERISTIC CURVES SS52BTHR USS520B

FIG.1-FORWARD CURRENT DERATING CURVE

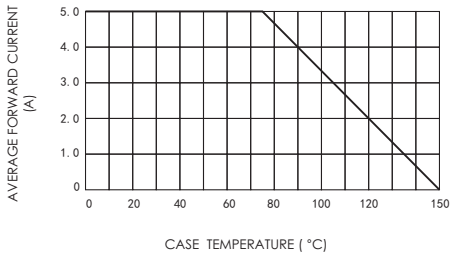


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

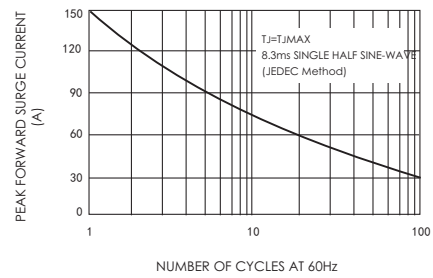


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

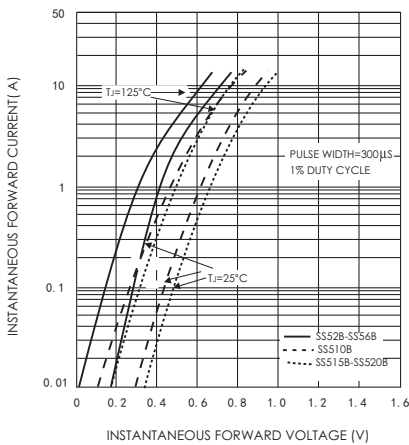


FIG.4-TYPICAL REVERSE CHARACTERISTICS

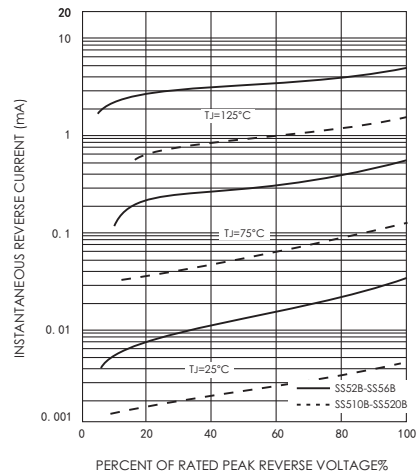


FIG.5-TYPICAL JUNCTION CAPACITANCE

