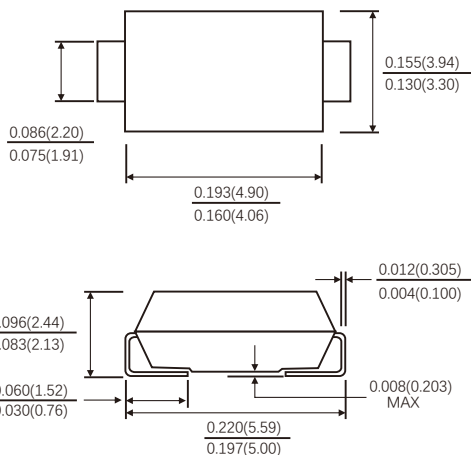


### FEATURES

- 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 2015/863/EU



### SMB(DO-214AA)



### 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%.)

Parameters		Symbols	SS 52B	SS 53B	SS 54B	SS 56B	SS 510B	SS 515B	SS 520B	Units
Maximum repetitive peak reverse voltage		V <sub>RRM</sub>	20	30	40	60	100	150	200	Volts
Maximum RMS voltage		V <sub>RMS</sub>	14	21	28	42	71	105	140	Volts
Maximum DC blocking voltage		V <sub>DC</sub>	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 <sub>J</sub> )		I <sub>FSM</sub>	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)		V <sub>F</sub>	0.55			0.70	0.85	0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T <sub>A</sub> =25°C	I <sub>R</sub>	100				20			μA
	T <sub>A</sub> =100°C		5				-			mA
	T <sub>A</sub> =125°C		-				3			
Typical junction capacitance(Note 3)		C <sub>J</sub>	220				100			PF
Typical thermal resistance (Note 2)		R <sub>θJA</sub> R <sub>θJL</sub>	70.0 25.0							°C/W
Operating junction temperature range		T <sub>J</sub>	-55 to+150							°C
Storage temperature range		T <sub>STG</sub>	-55 to+150							°C

- Notes: 1.Pulse test: 300us 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

FIG.1-FORWARD CURRENT DERATING CURVE

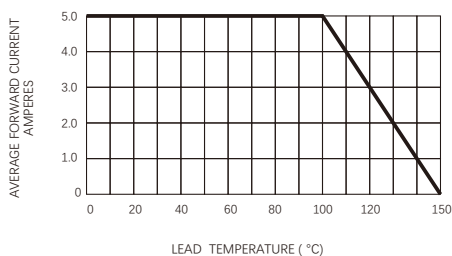


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

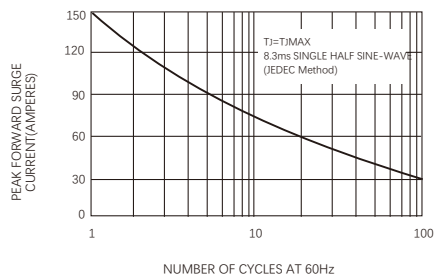


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

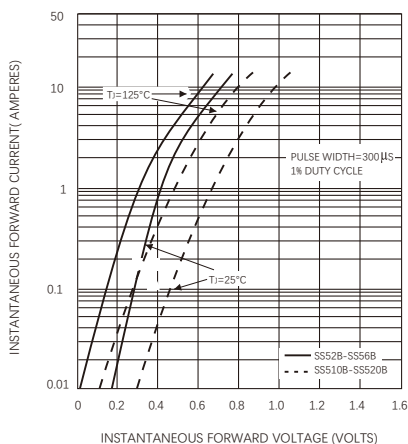


FIG.4-TYPICAL REVERSE CHARACTERISTICS

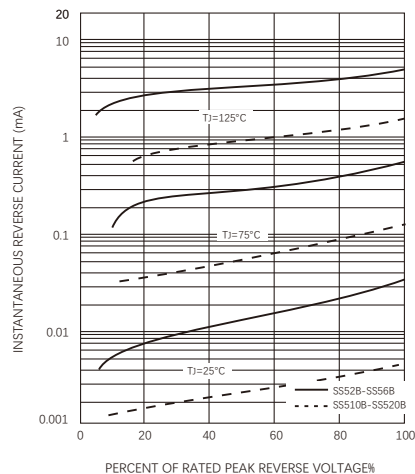


FIG.5-TYPICAL JUNCTION CAPACITANCE

