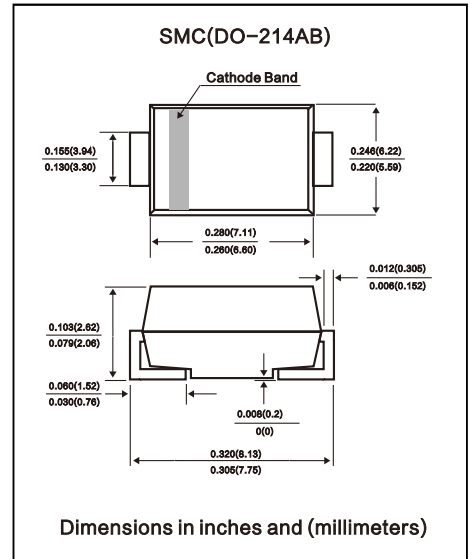


### FEATURES

- 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

### MECHANICAL DATA

- *Case:* JEDEC SMC(DO-214AB) molded plastic body
- *Terminals:* solder plated ,solderable per MIL-STD-750,method 2026
- *Polarity:* color band denotes cathode end
- *Weight:* 0.007ounce,0.21 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	SS52C	SS53C	SS54C	SS55C	SS56C	SS58C	SS510C	SS515C	SS520C	Units
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage	V <sub>RMS</sub>	14	21	28	35	42	57	71	105	140	Volts
Maximum DC blocking voltage	V <sub>DC</sub>	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(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 I <sub>t</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)	I <sub>R</sub>	0.2									mA
		50			10						
Typical junction capacitance(Note 3)	C <sub>J</sub>	500			400						pF
Typical thermal resistance (Note 2)	R <sub>θJA</sub>	55.0									°C/W
	R <sub>θJL</sub>	17.0									
Operating junction temperature range	T <sub>J</sub>	-65 to +150									°C
Storage temperature range	T <sub>STG</sub>	-65 to +150									°C

- Notes: 1. Pulse test: 300 μ s 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

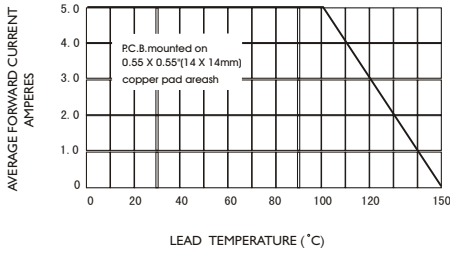


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

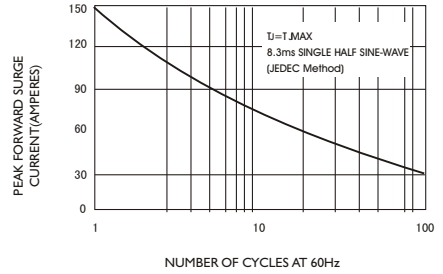


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

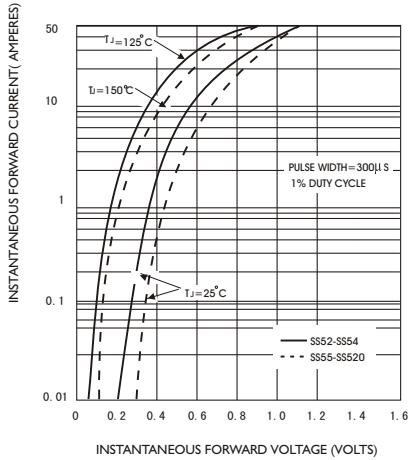


FIG.4-TYPICAL REVERSE CHARACTERISTICS

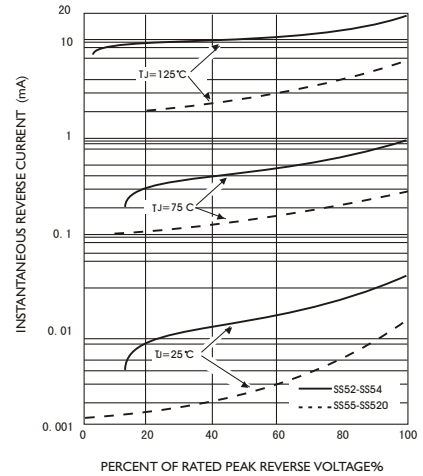


FIG.5-TYPICAL JUNCTION CAPACITANCE

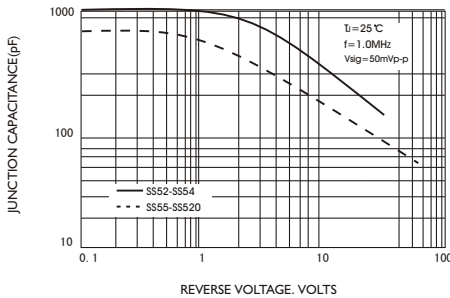


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

