



SS52 THRU SS5100

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 5.0Amperes

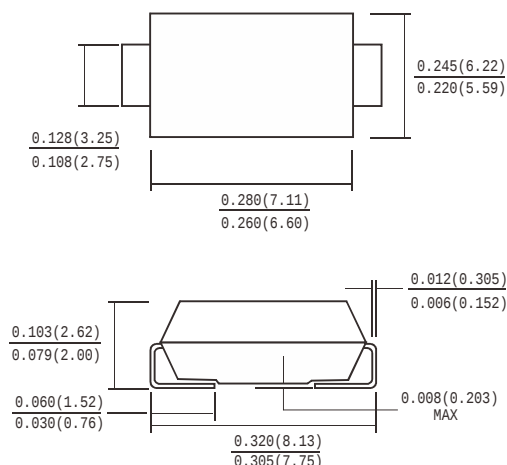
FEATURES

- 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 2002/95/EC and WEEE 2002/96/EC

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

SMC(DO-214AB)



Dimensions in inches and (millimeters)

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 55	SS 56	SS 58	SS 5100	Units
Maximum repetitive peak reverse voltage		V _{RRM}	20	30	40	50	60	80	100	Volts
Maximum RMS voltage		V _{RMS}	14	21	28	35	42	57	71	Volts
Maximum DC blocking voltage		V _{DC}	20	30	40	50	60	80	100	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 T _L)		I _{FSM}	150.0							Amps
Maximum instantaneous forward voltage at 5.0 A(Note 1)		V _F	0.55			0.75		0.80	0.85	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	T _a =25℃	I _R	1.5							mA
	T _a =100℃		20		10					
Typical junction capacitance(Note 3)		C _J	500			400			pF	
Typical thermal resistance (Note 2)		R _{θJA} R _{θJL}	55.0 17.0							℃/W
Operating junction temperature range		T _J	-65 to+125			-65 to+150				℃
Storage temperature range		T _{STG}	-65 to+150							℃

- 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

Rating and Characteristic Curves ($T_A = 25^{\circ}\text{C}$ Unless otherwise noted)

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FIG.1-FORWARD CURRENT DERATING CURVE

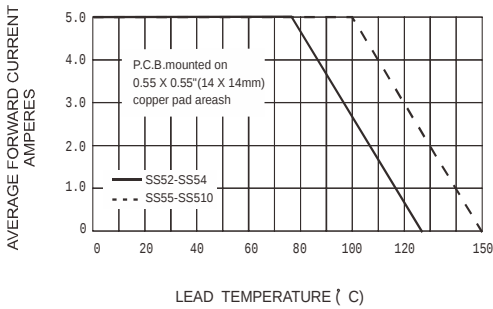


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

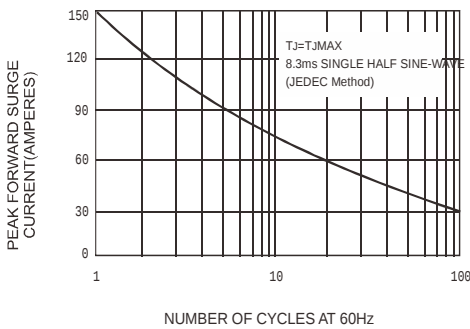


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

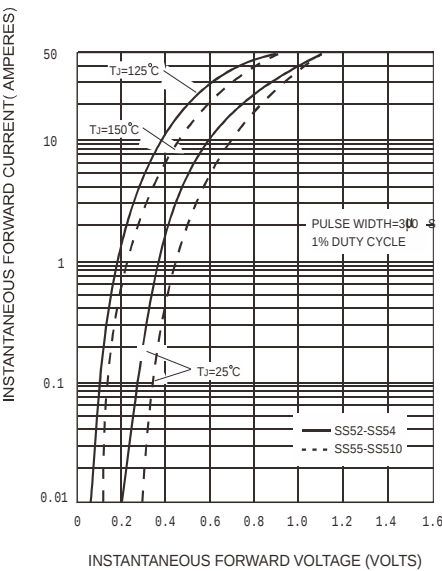


FIG.4-TYPICAL REVERSE CHARACTERISTICS

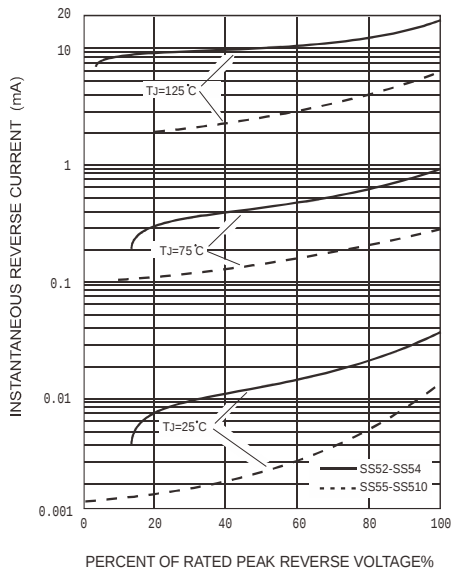


FIG.5-TYPICAL JUNCTION CAPACITANCE

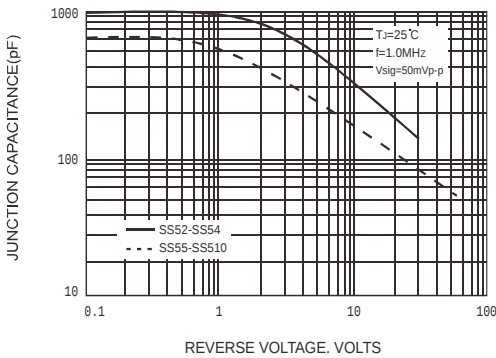


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

