



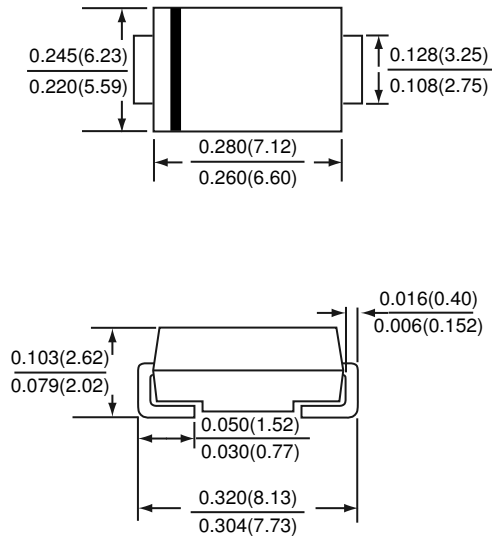
SC52 THRU SC510

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts

Forward Current - 5.0 Amperes

SMC / DO-214AB



*Dimensions in inches and (millimeters)



FEATURES

- * Compliance to RoHS product
- * Low profile package, Built-in strain relief
- * Metal silicon junction, majority carrier conduction
- * Low power loss, high efficiency
- * High current capability, low forward voltage drop
- * High surge capability
- * For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- * High temperature soldering guaranteed : 260°C/10 seconds, at terminals
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

Case : JEDEC DO-214AB molded plastic body

Terminals : Tin plated, solderable per MIL-STD-750D
Method 2026

Polarity : Color band denotes cathode end

Weight : 0.007 ounces , 0.21 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.		SYMBOLS	SC52	SC54	SC56	SC510	UNITS
Maximum repetitive peak reverse voltage		VRRM	20	40	60	100	Volts
Maximum RMS voltage		VRMS	14	28	42	70	Volts
Maximum DC blocking voltage		VDC	20	40	60	100	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		IFSM	125				Amps
Maximum instantaneous forward voltage at 5.0 A (NOTE 1)		VF	0.55		0.70	0.85	Volts
Maximum DC reverse current at rated DC blocking voltage (NOTE 1)	TA=25°C	IR	0.5				mA
	TA=100°C		20		10		
Typical thermal resistance (NOTE 2)		R θJA	40				°C / W
		R θJL	10				
Operating junction temperature range		TJ	-55 to +125		-55 to +150		°C
Storage temperature range		TSTG	-55 to +150				°C

NOTES : (1) Pulse test : 300us pulse width, 1% duty cycle

(2) P.C.B. mounted with 0.55 x 0.55" (14 x 14mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES SC52 THRU SC510

FIG.1 - FORWARD CURRENT DERATING CURVE

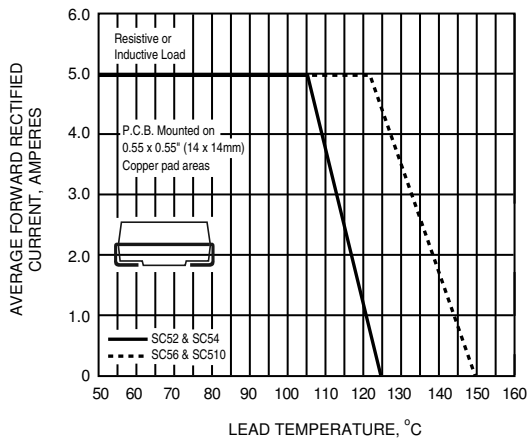


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

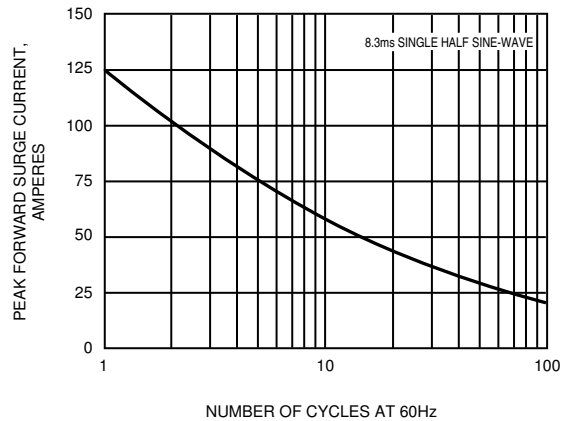


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

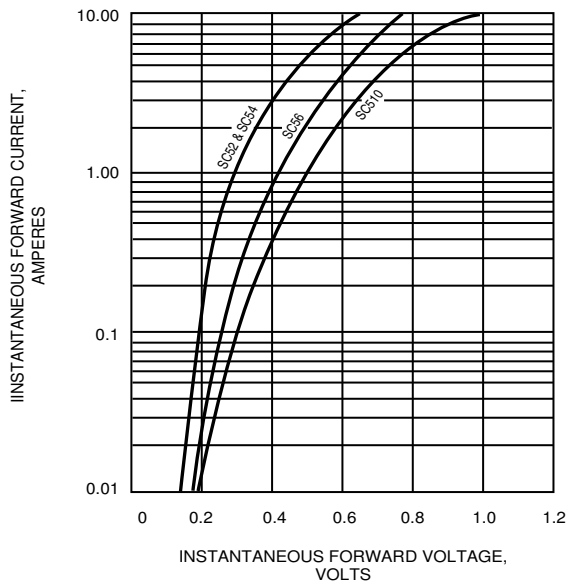


FIG.4 - TYPICAL REVERSE CURRENT CHARACTERISTICS

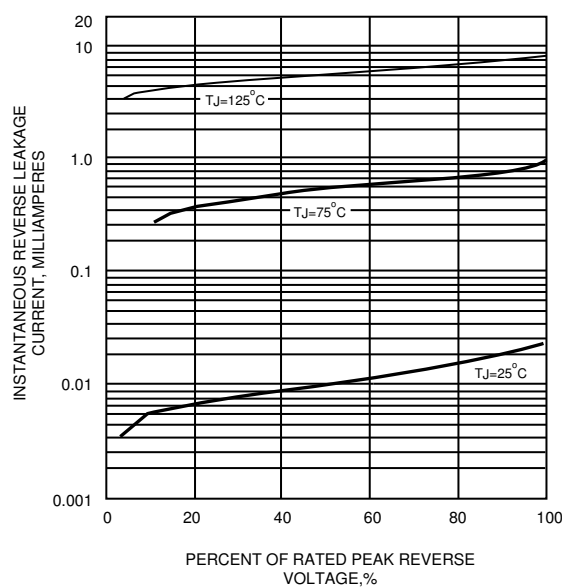


FIG.5 - TYPICAL JUNCTION CAPACITANCE

