

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 40 Volts

Forward Current - 1.0Ampere

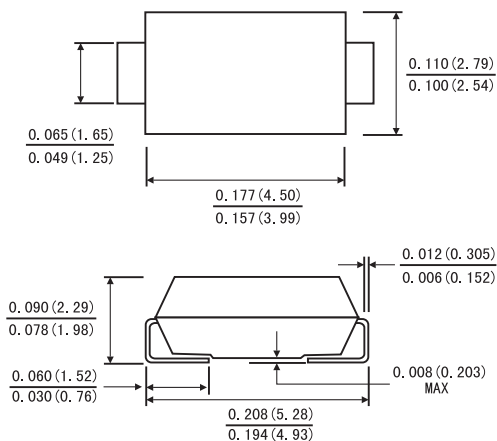
SCHOTTKY
RECTIFIER

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Guard ring for overvoltage protection
- 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:250°C/10 seconds at terminals



SMA(DO-214AC)



Dimensions in inches and (millimeters)

MECHANICAL DATA

- Case: JEDEC SMA(DO-214AC) molded plastic body
- Terminals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.002ounce, 0.064 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 5817	SS 5818	SS 5819	Units
Maximum repetitive peak reverse voltage		VRRM	20	30	40	Volts
Maximum RMS voltage		VRMS	14	21	28	Volts
Maximum DC blocking voltage		VDC	20	30	40	Volts
Maximum non-repetitive peak reverse voltage		VRSM	24	36	48	Volts
Maximum average forward rectified current 0.375"(9.5mm)lead length at TL=90 C °		I(AV)	1.0			Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at TL=70 C °		IFSM	25.0			Amps
Maximum instantaneous forward voltage at 1.0 A(note 1)		VF	0.450	0.550	0.600	Volts
Maximum instantaneous forward voltage at 3.1 A(note 1)		VF	0.750	0.875	0.900	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	TA=25°C	IR	0.5			mA
	TA=100°C		10.0			
Typical junction capacitance(Note 3)		CJ	110.0			pF
Typical thermal resistance(Note 2)		RθJA RθJL	88.0 28.0			°C/W
Operating junction and storage temperature range		TJTSTG	-65 to +125			°C

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle

2.Thermal resistance (from junction to ambient)Vertical P.C.B. mounted , with 1.5X1.5"(38X38mm)copper pads

3.Measured at 1.0MHz and reverse voltage of 4.0 volts

RATINGS AND CHARACTERISTIC CURVES SS5817 THRU SS5819

FIG.1-FORWARD CURRENT DERATING CURVE

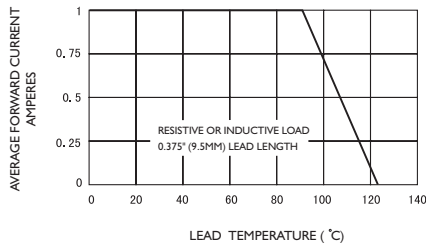


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

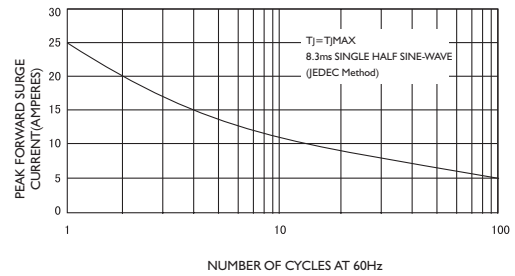


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

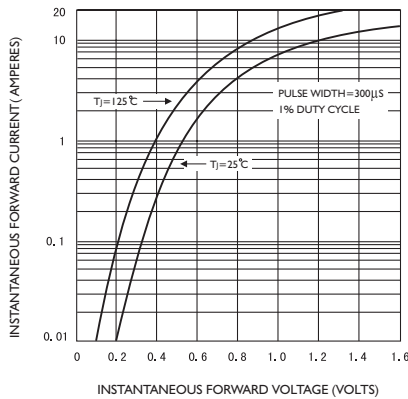


FIG.4-TYPICAL REVERSE CHARACTERISTICS

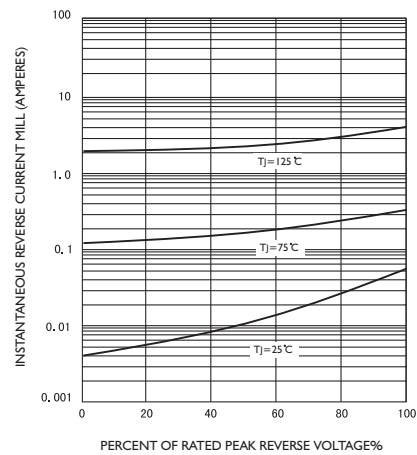


FIG.5-TYPICAL JUNCTION CAPACITANCE

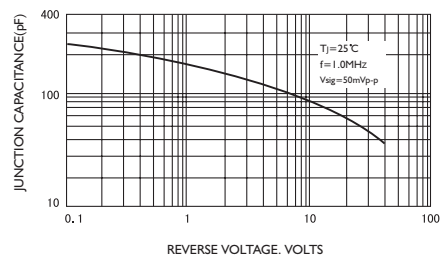


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

