

SS5817 THRU SS5819

Surface Mount Schottky Barrier Rectifiers

Reverse Voltage - 20 to 40 V

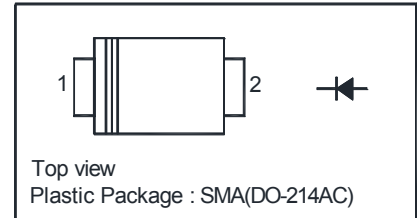
Forward Current - 1 A

Features

- Plastic package has Underwriters Laboratory 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

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Mechanical Data

- **Case:** SMA (DO-214AC) molded plastic case
- **Terminals:** Solder plate, solderable per MIL-STD -750, method 2026
- **Polarity:** Color band denotes cathode end
- **Mounting Position:** Any

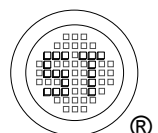
Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, resistive or inductive load, for capacitive load, derate by 20%

Parameter	Symbols	SS5817	SS5818	SS5819	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum RMS Voltage	V_{RMS}	14	21	28	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	1			A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	25			A
Maximum Instantaneous Forward Voltage at 1 A	V_F	0.45	0.55	0.6	V
Maximum Instantaneous Reverse Current at Rated DC Blocking Voltage	I_R	0.5			at $T_A = 25^\circ C$ mA
		10			at $T_A = 100^\circ C$ mA
Typical Junction Capacitance ¹⁾	C_J	110			pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	75			°C/W
Operating Temperature	T_J	125			°C
Storage Temperature Range	T_{Stg}	- 55 to + 150			°C

¹⁾ Measured at 1 MHz and reverse voltage of 4 V.D.C.

²⁾ P.C.B. mounted with 2" X 2" (5 X 5 cm) copper pad areas.



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Electrical characteristic curves

Fig.1 Forward Current Derating Curve

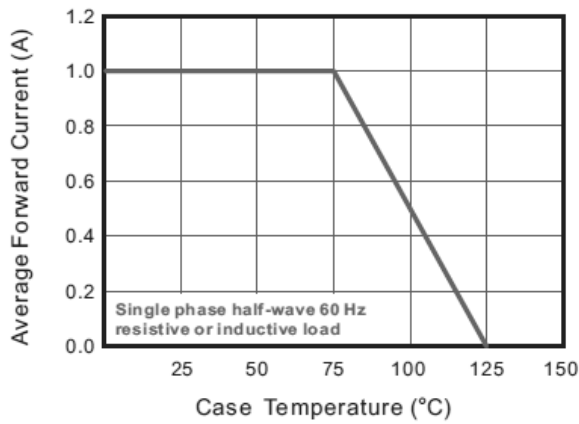


Fig.2 Typical Reverse Characteristics

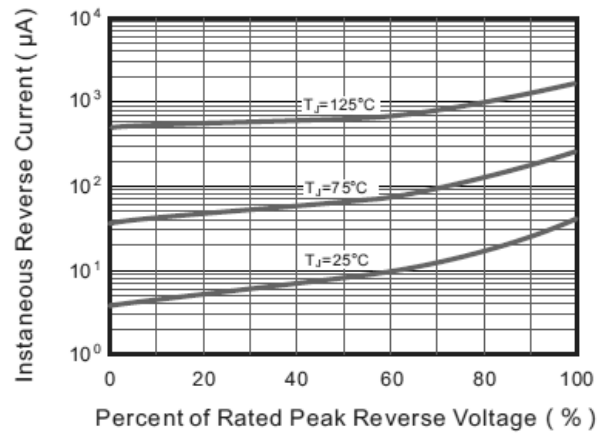


Fig.3 Typical Forward Characteristic

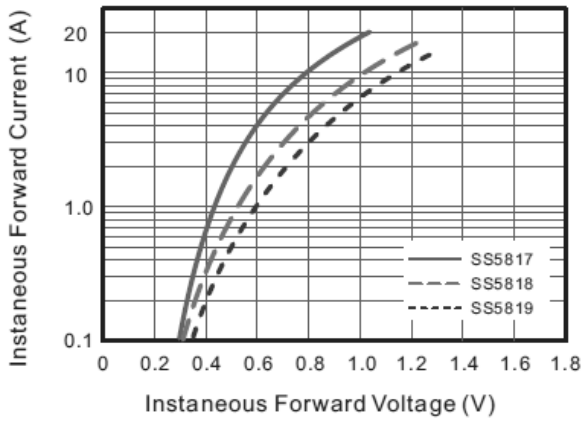


Fig.4 Typical Junction Capacitance

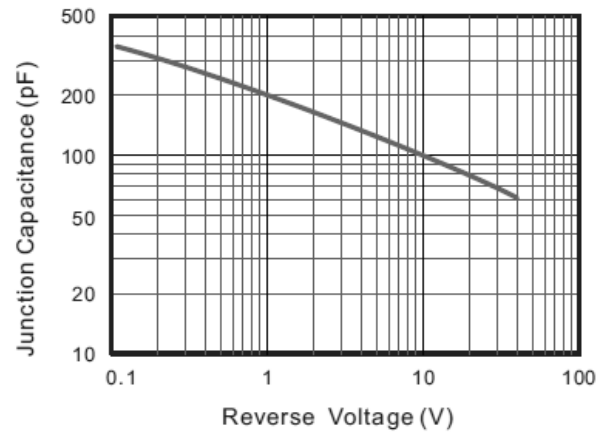


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

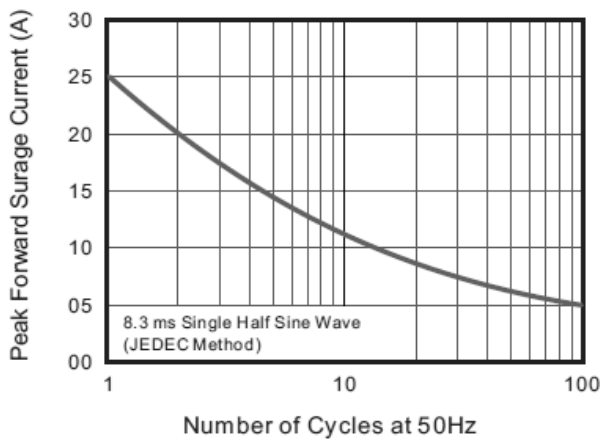
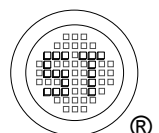
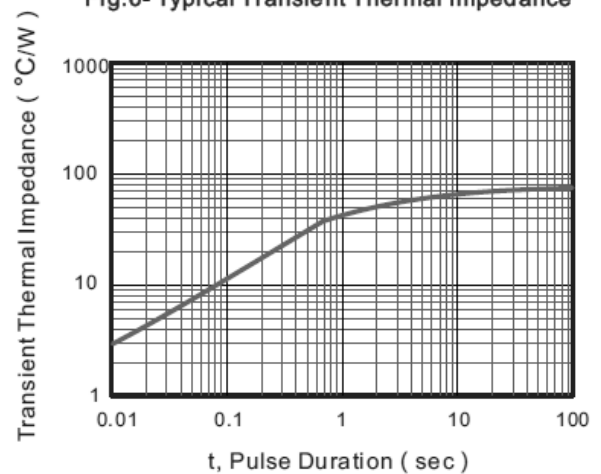


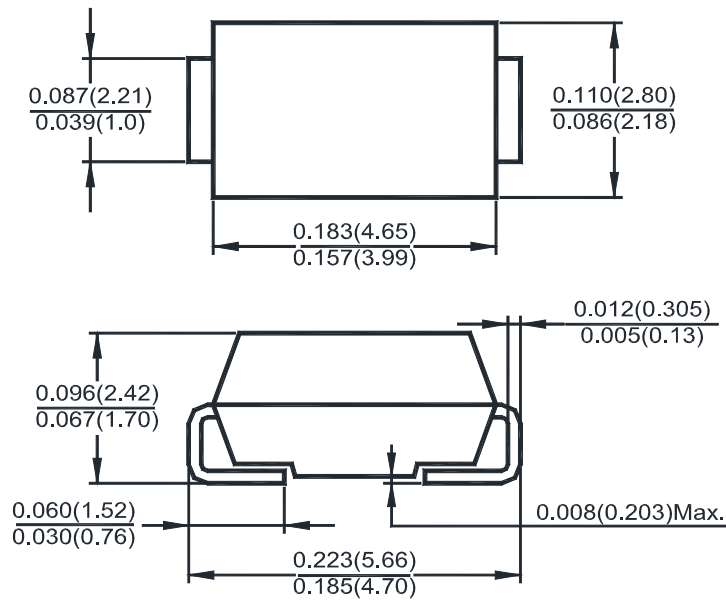
Fig.6- Typical Transient Thermal Impedance



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Package Outline Dimensions in inches (millimeters)

SMA(DO-214AC)

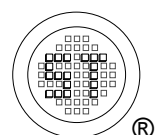


Marking information

" ***** " = Part No.

" III " = Cathode line

Font type: Arial



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