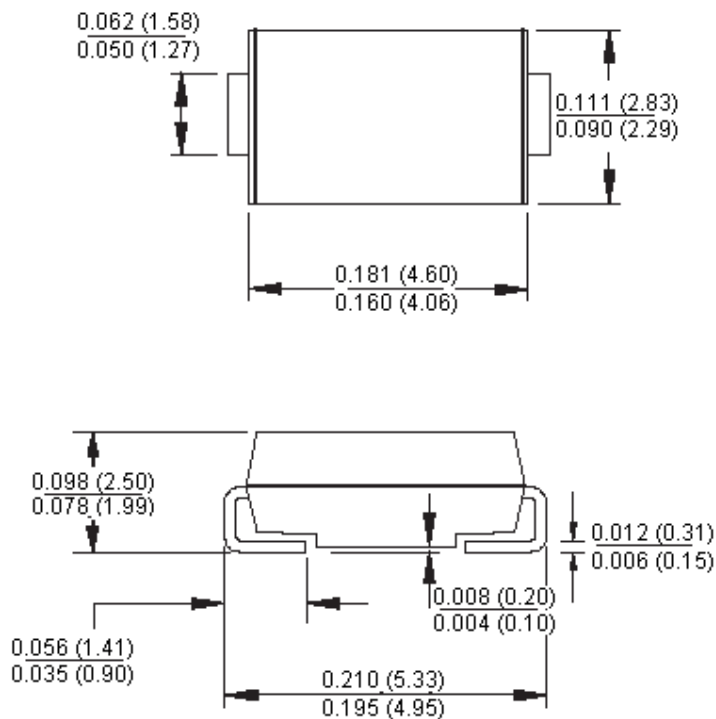




Features:

- For surface mounted application.
- Easy pick and place.
- Metal to silicon rectifier, majority carrier conduction.
- Low power loss, high efficiency.
- High current capability, low V_F .
- High surge current capability.
- Plastic material.
- Epitaxial construction.
- High temperature soldering: 260°C/10 seconds at terminals.

SMA/DO-214AC



Dimensions : Inches (Millimetres)

Mechanical Data:

Cases	: JEDEC SMA/DO-214AC moulded plastic.
Terminals	: Pure tin plated, lead free.
Polarity	: Indicated by cathode band.
Packing	: 12mm tape per EIA STD RS-481.
Weight	: 0.066 gram.

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Type Number	Symbol	SS12	SS13	SS15	SS19	SS115	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	50	90	150	V
Maximum RMS Voltage	V_{RMS}	14	21	35	63	105	
Maximum DC Blocking Voltage	V_{DC}	20	30	50	90	150	
Maximum Average Forward Rectified Current at T_L	$I_{(AV)}$	1.0					A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	30					
Maximum Instantaneous Forward Voltage (Note 1) $I_F = 1.0A$ at 25°C at 100°C	V_F	0.5 0.4		0.75 0.65	0.80 0.70	0.95 0.85	V
Maximum DC Reverse Current at $T_A = 25^\circ C$ at Rated DC Blocking Voltage at $T_A = 125^\circ C$	I_R	0.4			0.1		μA μA
		10		5.0	2.0		
Maximum DC Reverse Current at $V_R = 33V$ and $T_A = 50^\circ C$	HT_{IR}	-			5.0		μA
Typical Junction Capacitance (Note 3)	C_j	50					pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	28					$^\circ C/W$
	$R_{\theta JA}$	88					
Operating Temperature Range	T_J	-65 to +125		-65 to +150			$^\circ C$
Storage Temperature Range	T_{STG}	-65 to +150					

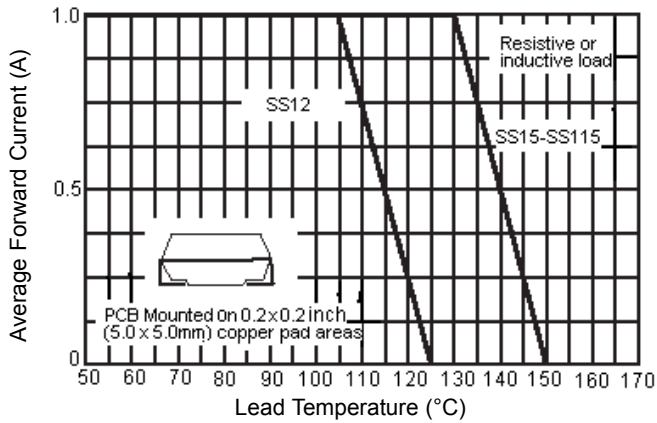
Notes: 1. Pulse Test with PW = 300 μ seconds, 1% Duty Cycle.

2. Measured on PC Board with 0.2 x 0.2 inches (5.0mm x 5.0mm) Copper Pad Areas.

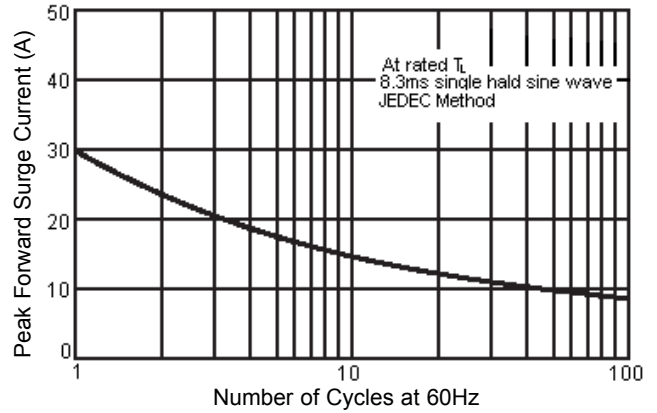
3. Measured at 1MHz and Applied Reverse Voltage of 4.0V dc.

Ratings and Characteristic Curves (SS115, SS12, SS13, SS15, SS19)

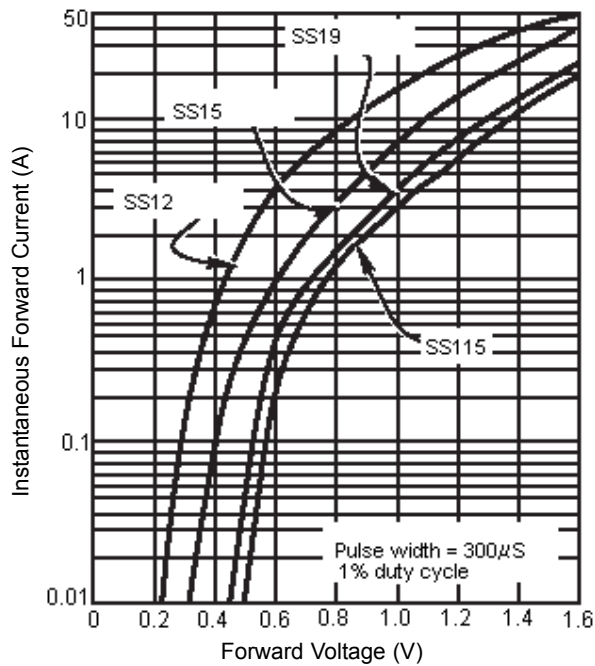
Maximum Forward Current Derating Curve



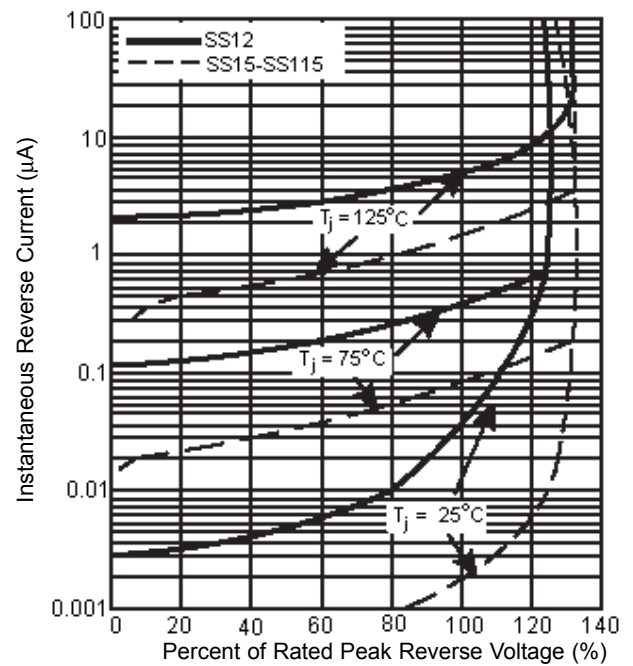
Maximum Non-Repetitive Forward Surge Current



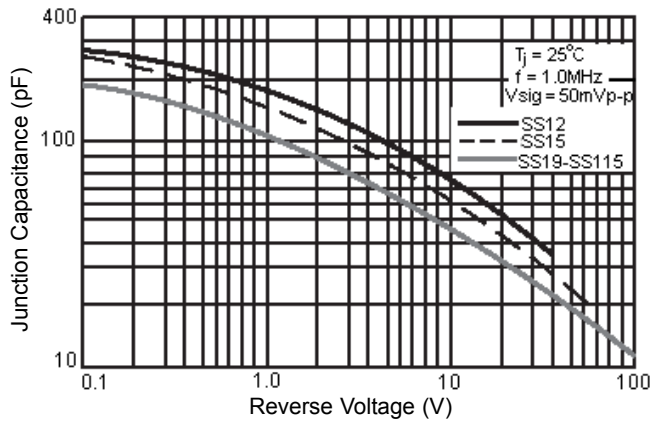
Typical Forward Characteristics



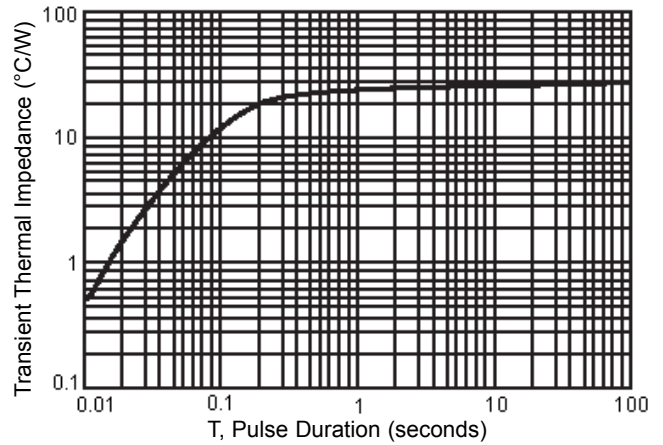
Typical Reverse Characteristics



Typical Junction Capacitance



Typical Transient Thermal Characteristics



Part Number Table

Description	Part Number
Diode, Schottky, 1A, 150V	SS115
Diode, Schottky, 1A, 20V	SS12
Diode, Schottky, 1A, 300V	SS13
Diode, Schottky, 1A, 50V	SS15
Diode, Schottky, 1A, 90V	SS19

Notes:

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