

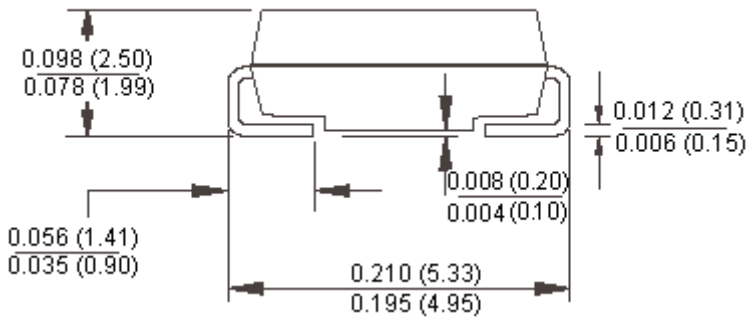
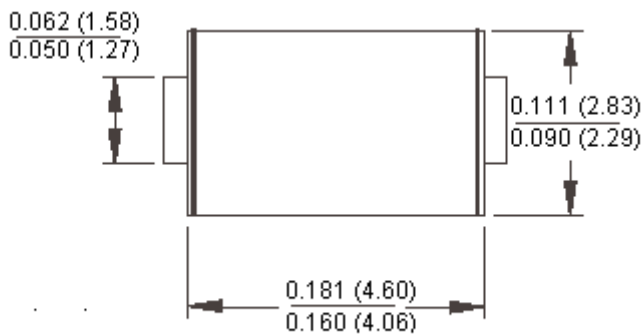


Features:

- For surface mounted application.
- Glass passivated junction chip.
- Built-in strain relief, ideal for automated placement.
- Plastic material.
- Fast switching for high efficiency.
- High temperature soldering: 260°C/10 seconds at terminals.



SMA/DO-214AC



Dimensions : Inches (Millimetres)

Mechanical Data:

Cases	: Moulded plastic.
Terminals	: Pure tin plated, lead free.
Polarity	: Indicated by cathode band.
Packing	: 12mm tape per EIA STD RS-481.
Weight	: 0.064 grams.

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	RS1K	RS1M	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	800	1000	V
Maximum RMS Voltage	V_{RMS}	560	700	
Maximum DC Blocking Voltage	V_{DC}	800	1000	
Maximum Average Forward Rectified Current at $T_L = 90^\circ\text{C}$	$I_{(AV)}$	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 at 1.0A	V_F	1.3		V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	I_R	5 50		μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	250	500	nS
Typical Junction Capacitance (Note 2)	C_j	10		pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	105 32		$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150		$^\circ\text{C}$
Storage Temperature Range	T_{STG}			

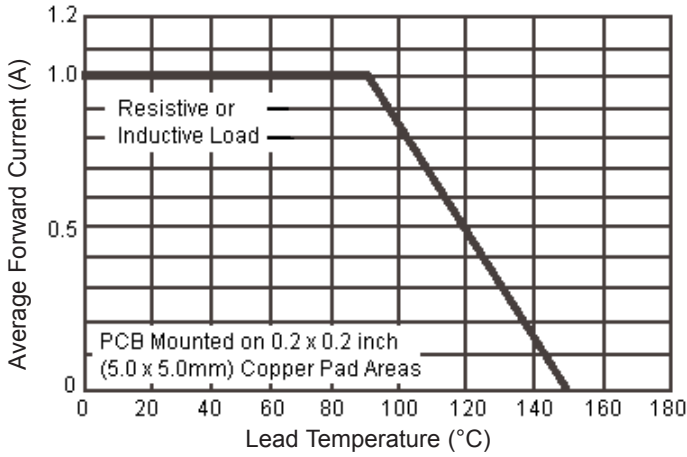
Note: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

2. Measured at 1MHz and Applied $V_R = 4.0$ Volts.

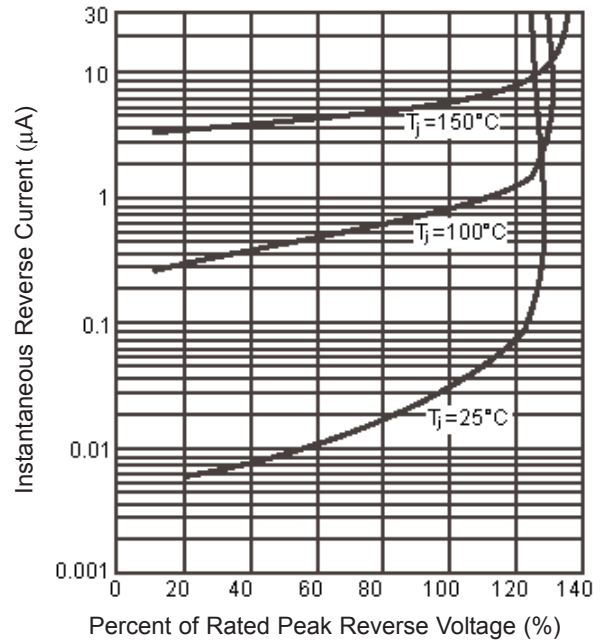
3. Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on PCB with 0.2 x 0.2 inches (5.0 x 5.0mm) Copper Pad Areas.

Ratings and Characteristic Curves (RS1K, RS1M)

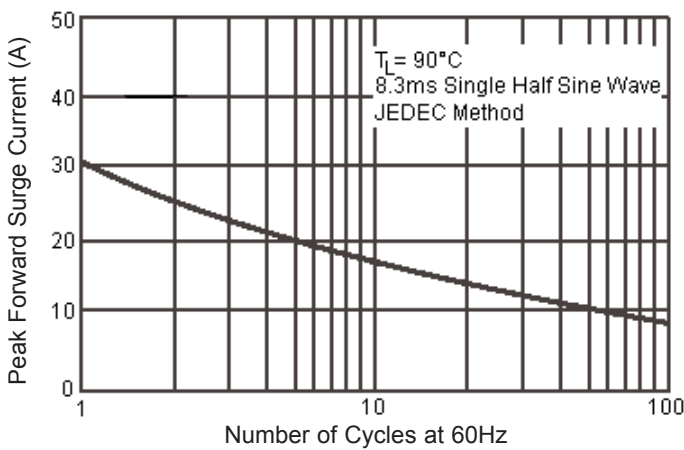
Maximum Forward Current Derating Curve



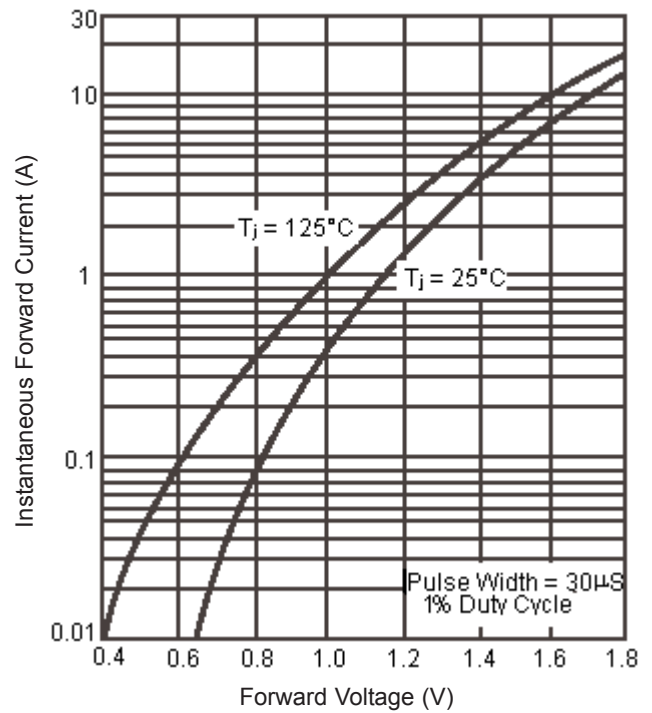
Typical Reverse Characteristics



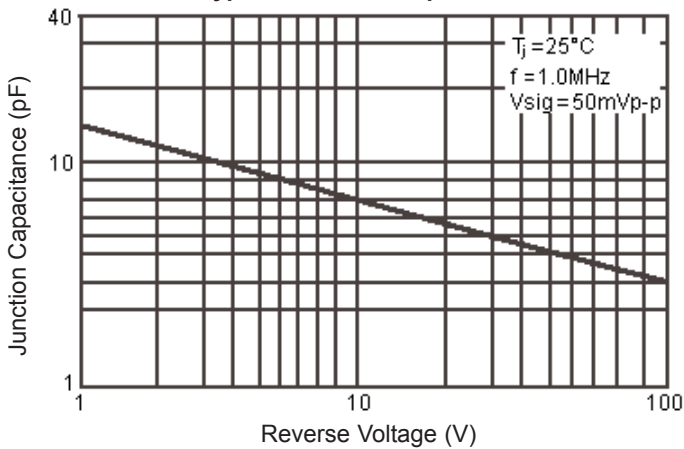
Maximum Non-Repetitive Forward Surge Current



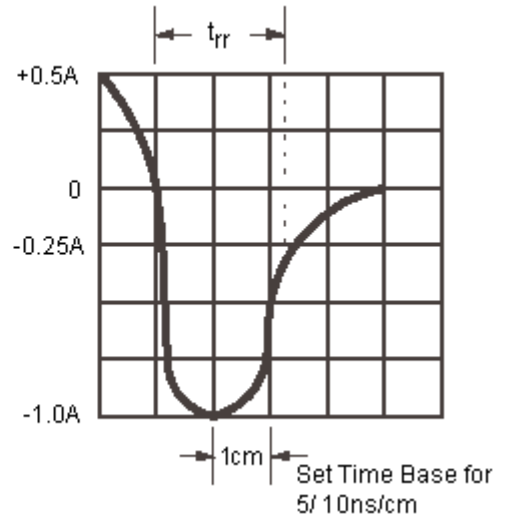
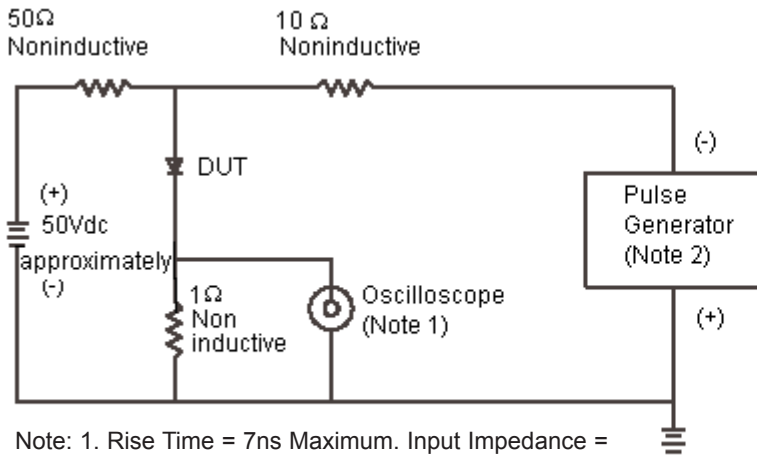
Typical Instantaneous Forward Characteristics Per Leg



Typical Junction Capacitance



Reverse Recovery Time Characteristic and Test Circuit Diagram



Note: 1. Rise Time = 7ns Maximum. Input Impedance = 1 Megohm 22pf
 2. Rise Time = 10ns Maximum Source Impedance = 50 ohms

Part Number Table

Description	Part Number
Diode, Fast, 1A, 800V	RS1K
Diode, Fast, 1A, 1000V	RS1M

Notes:

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