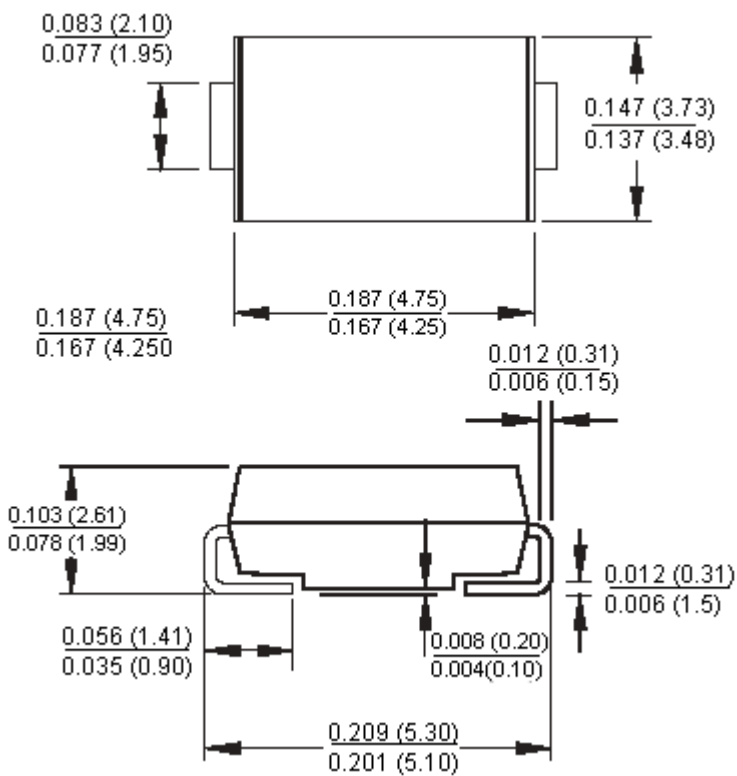




Features:

- For surface mounted application.
- Glass passivated junction chip.
- Low forward voltage drop.
- High current capability.
- Easy pick and place.
- High surge current capability.
- Plastic material.
- High temperature soldering: 260°C/10 seconds at terminals.

SMA/DO-214AA



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	: 0.093 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	S2B	S2K	S2M	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	100	800	1000	V
Maximum RMS Voltage	V_{RMS}	70	560	700	
Maximum DC Blocking Voltage	V_{DC}	100	800	1000	
Maximum Average Forward Rectified Current at $T_L = 110^\circ\text{C}$	$I_{(AV)}$	2.0			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50			
Maximum Instantaneous Forward Voltage at 2.0A	V_F	1.15			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	5.0 125			μA μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	1.5			μS
Typical Junction Capacitance (Note 2)	C_j	30			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$ $R_{\theta JA}$	16 53			$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150			$^\circ\text{C}$
Storage Temperature Range	T_{STG}				

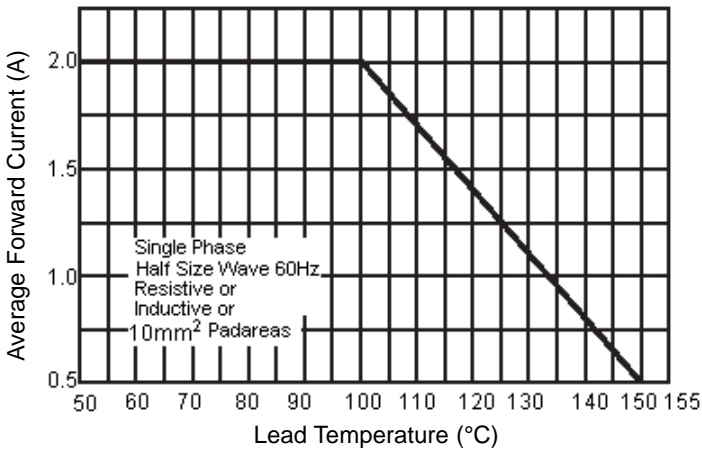
Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

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

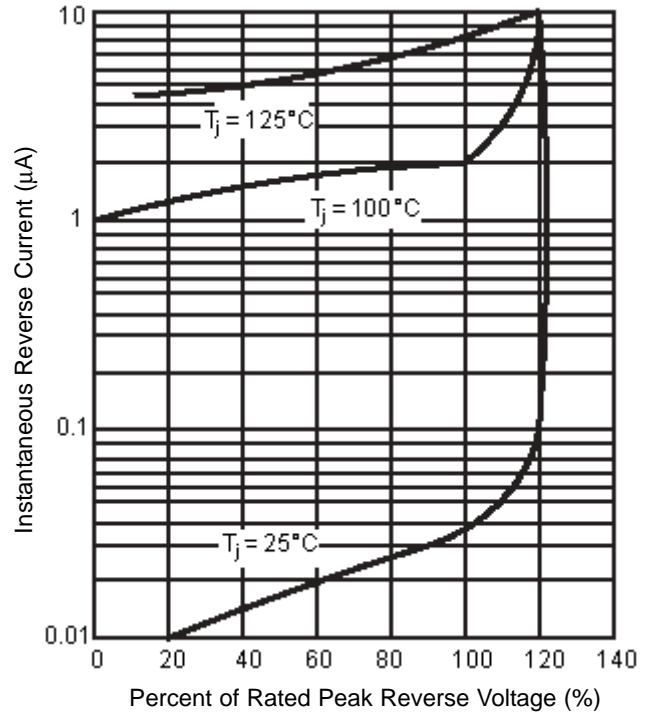
3. Measured on PC Board with 0.4 x 0.4 inches (10mm x 10mm) Copper Pad Areas.

Ratings and Characteristic Curves (S1K and S1M)

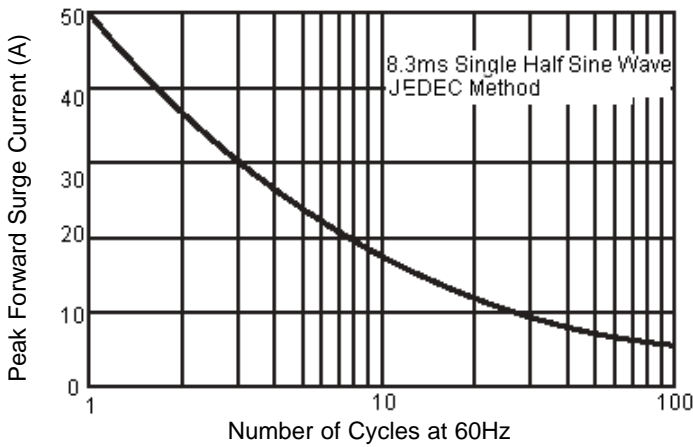
Maximum Forward Current Derating Curve



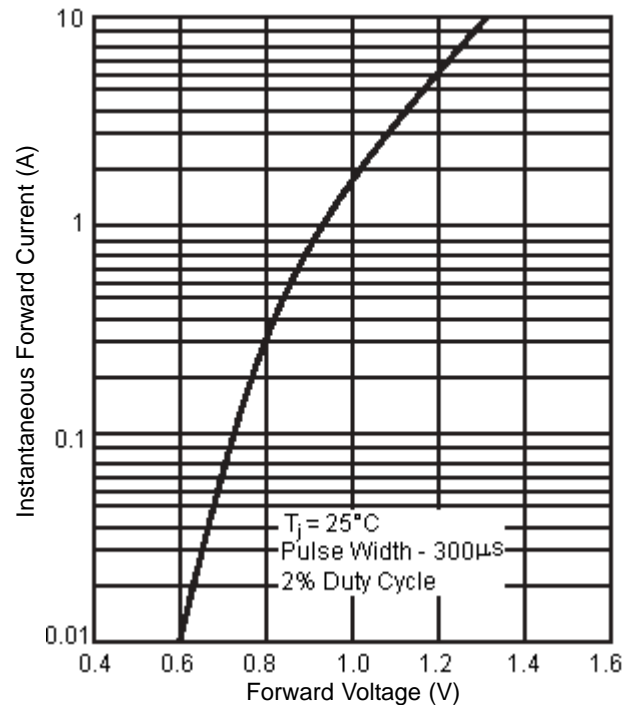
Typical Reverse Characteristics



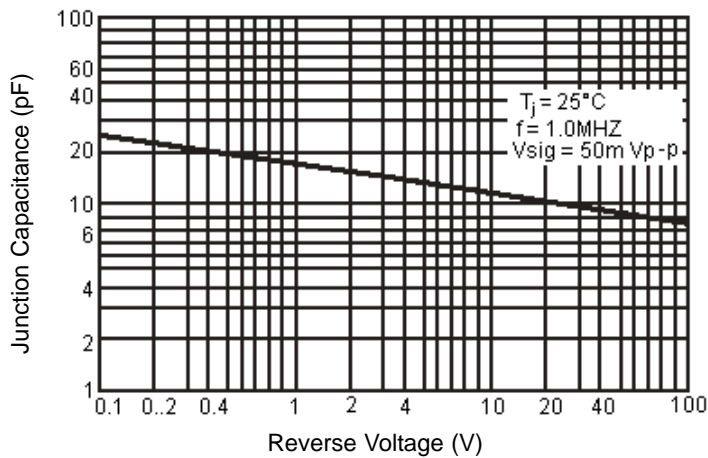
Maximum Non-Repetitive Forward Surge Current



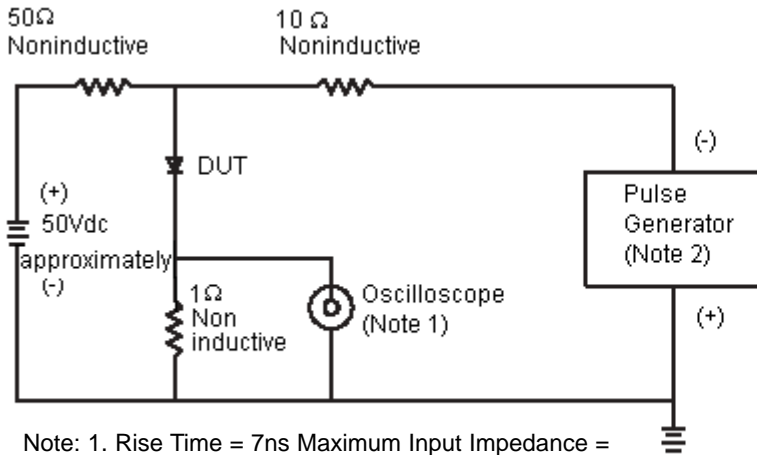
Typical Forward Characteristics



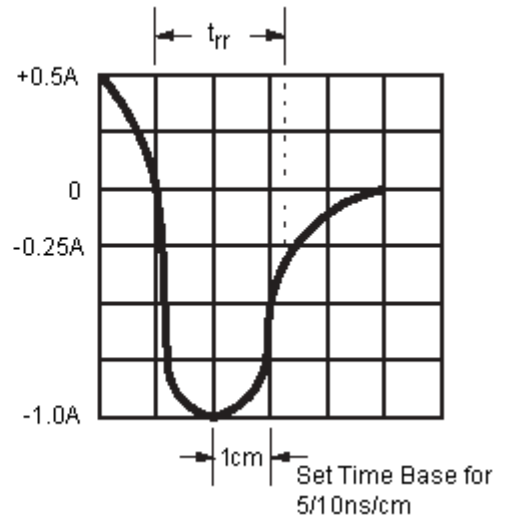
Typical Junction Capacitance



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, Standard, 2A, 100V	S2B
Diode, Standard, 2A, 800V	S2K
Diode, Standard, 2A, 1000V	S2M

Notes:

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