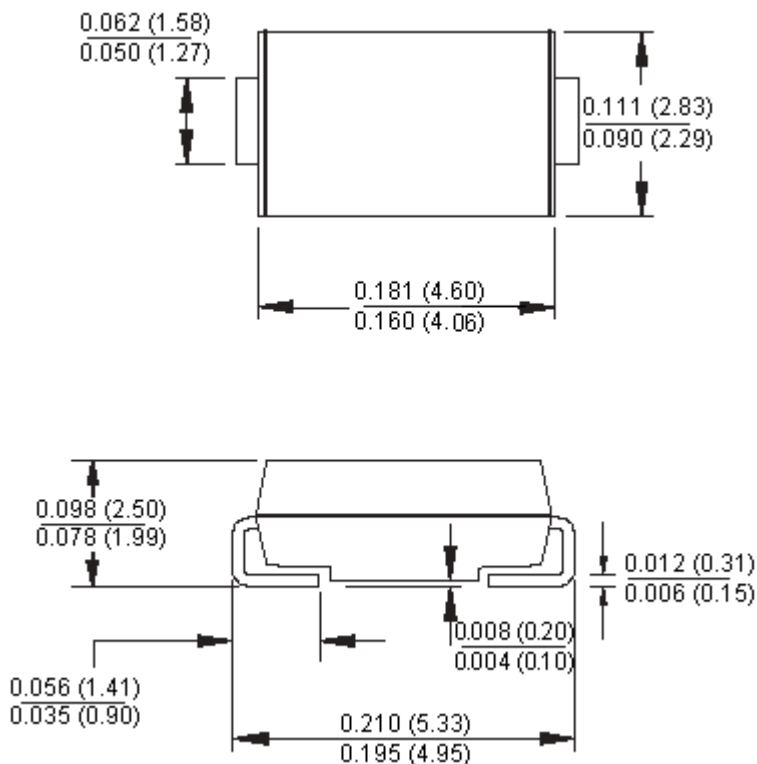




Features:

- 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.
- High reliability grade (AEC Q101 qualified).

SMA/DO-214AC



Dimensions : Inches (Millimetres)

Mechanical Data:

Cases	: Moulded plastic.
Terminals	: Pure tin plated, lead free solderable per J-STD-002B and JESD22-B102D.
Polarity	: Indicated by cathode band.
Packing	: 12mm tape per EIA STD RS-481.
Weight	: 0.064 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	S1K	S1M	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 = 110°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	1.1		V
Maximum DC Reverse Current at T _A = 25°C at Rated DC Blocking Voltage at T _A = 125°C	I _R	1.0 50		μA μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	1.5		uS
Typical Junction Capacitance (Note 2)	C _j	12		pF
Non-Repetitive Peak Reverse Avalanche Energy at 25°C, I _{AS} = 1 _A , L = 10mH	E _{AS}	5		mJ
Typical Thermal Resistance (Note 3)	R _{θJL} R _{θJA}	30 85		°C/W
Operating Temperature Range	T _J	-55 to +150		°C
Storage Temperature Range	T _{STG}			

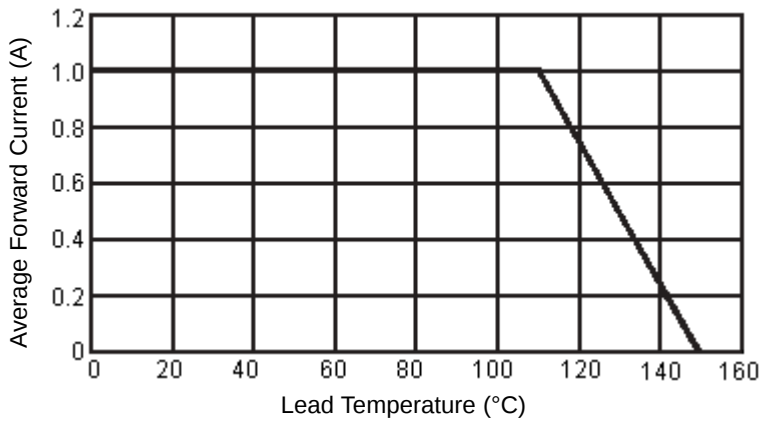
Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$.

2. Measured at 1MHz and Applied $V_R = 4.0\text{ Volts}$.

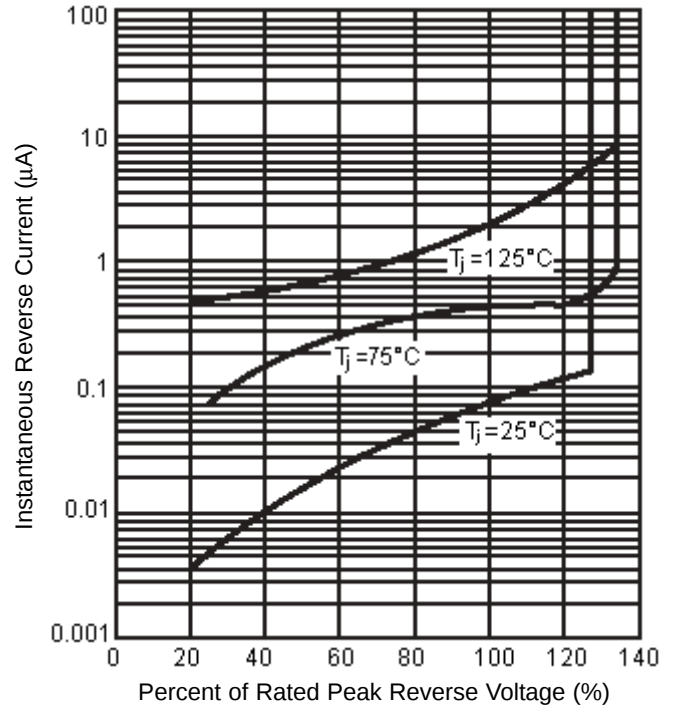
3. Measured on PC Board with 0.2 x 0.2 inches (5.0mm x 5.0mm) Copper Pad Areas.

Ratings and Characteristic Curves (S1K and S1M)

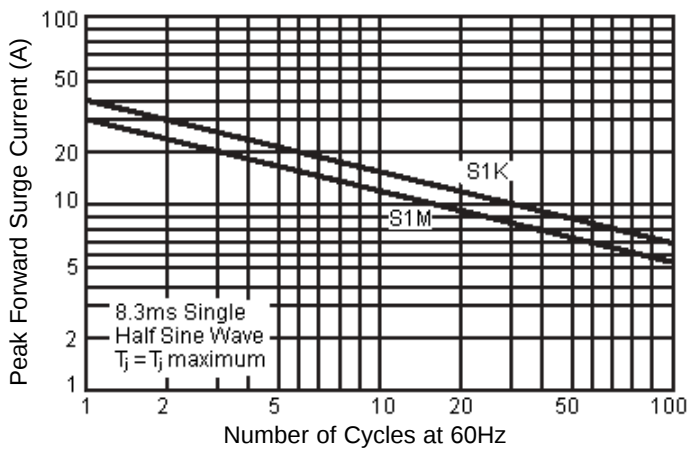
Maximum Forward Current Derating Curve



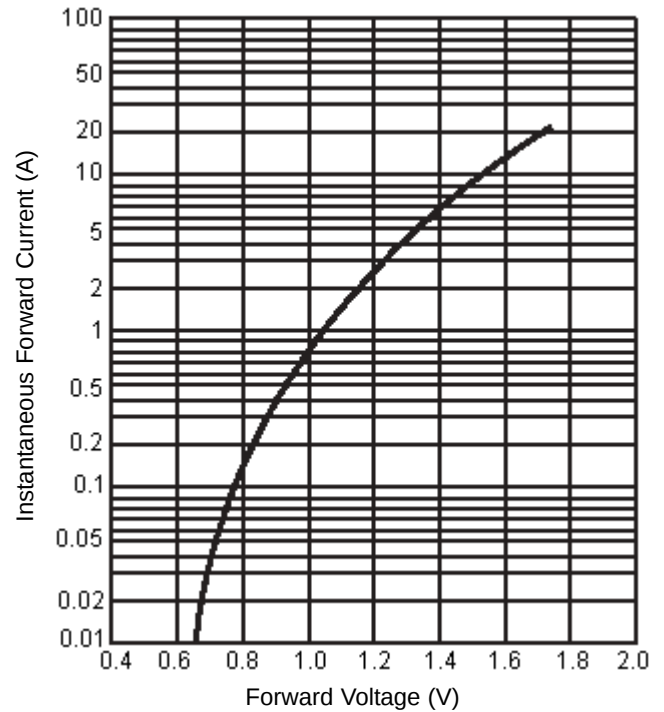
Typical Reverse Characteristics



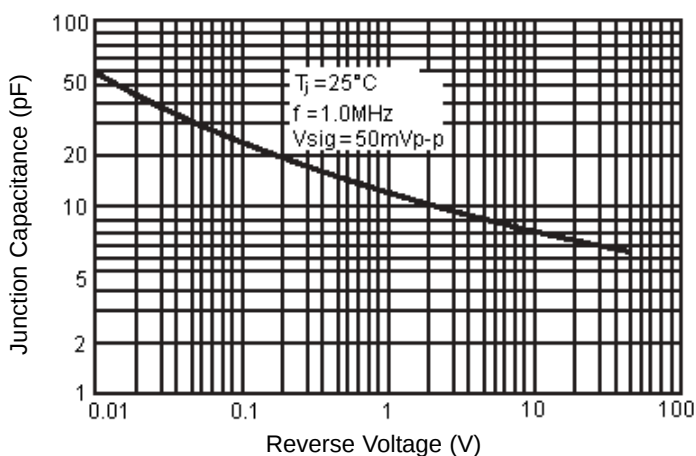
Maximum Non-Repetitive Forward Surge Current



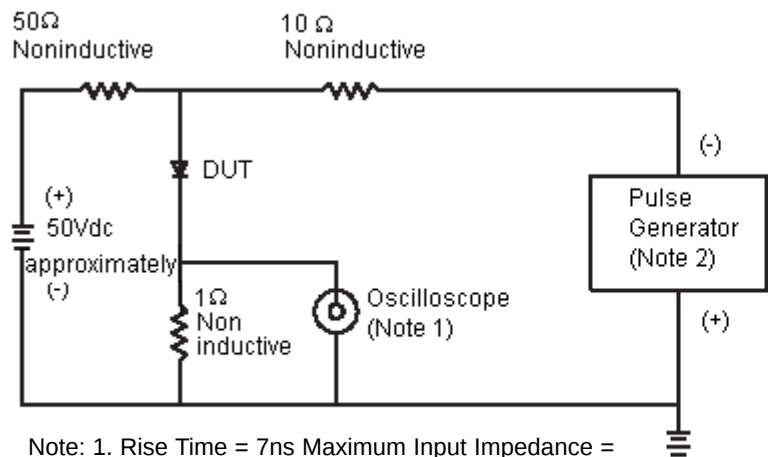
Typical Forward Characteristics



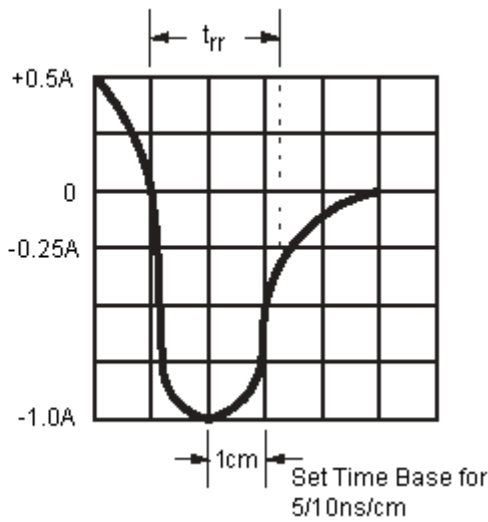
Typical Junction Capacitance



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, 1A, 800V	S1K
Diode, Standard, 1A, 1000V	S1M

Notes:

International Sales Offices:

	AUSTRALIA - Farnell Tel No: ++61 1300 361 005 Fax No: ++61 1300 361 225		FINLAND - Farnell Tel No: ++ 358 9 560 7780 Fax No: ++ 358 9 345 5411		ITALY - Farnell Tel No: ++ 39 02 93 995 200 Fax No: ++ 39 02 93 995 300		SPAIN - Farnell Tel No: 901 20 20 80 Fax No: 901 20 20 90
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