

**RoHS  
Compliant**



### 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

### Specifications:

#### 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	: 0.093g

### 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%.

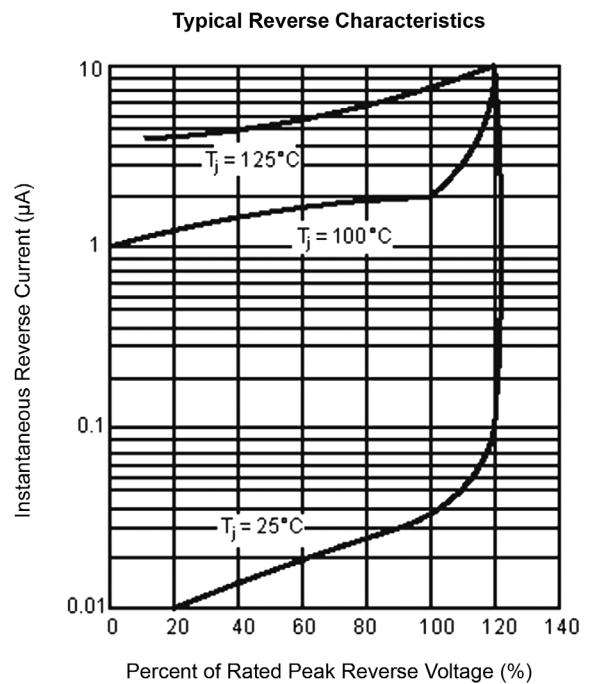
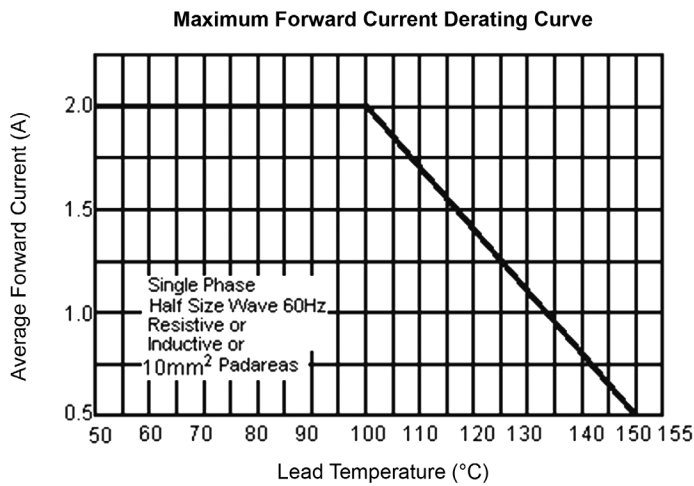
Parameters	Symbol	S2B	S2K	S2M	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	100	800	1,000	V
Maximum RMS Voltage	$V_{RMS}$	70	560	700	
Maximum DC Blocking Voltage	$V_{DC}$	100	800	1,000	
Maximum Average Forward Rectified Current at $T_L = 110^\circ\text{C}$	$I_{(AV)}$	2			A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	50			
Maximum Instantaneous Forward Voltage at 2A	$V_F$	1.15			V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	$I_R$	5 125			$\mu\text{A}$ $\mu\text{A}$

Parameters	Symbol	S2B	S2K	S2M	Units
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$		1.5		$\mu\text{S}$
Typical Junction Capacitance (Note 2)	$C_j$		30		pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$		16		$^{\circ}\text{C}/\text{W}$
	$R_{\theta JA}$		53		
Operating Temperature Range	$T_J$	-55 to +150			$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$				

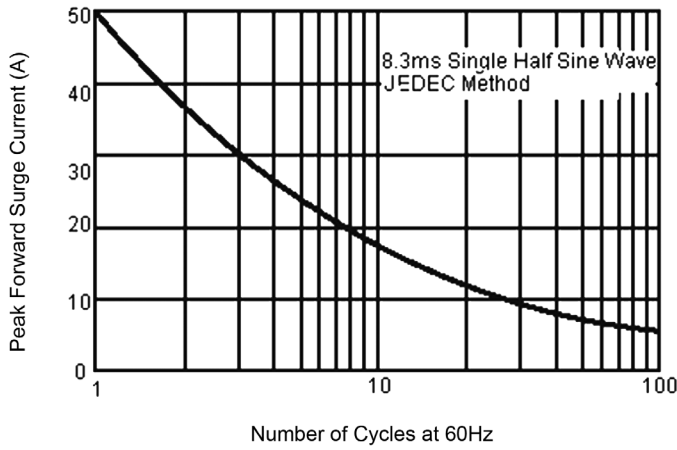
**Notes:**

- Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .
- Measured at 1MHz and Applied  $V_R = 4\text{V}$ .
- Measured on PC Board with 0.4" x 0.4" (10mm x 10mm) Copper Pad Areas.

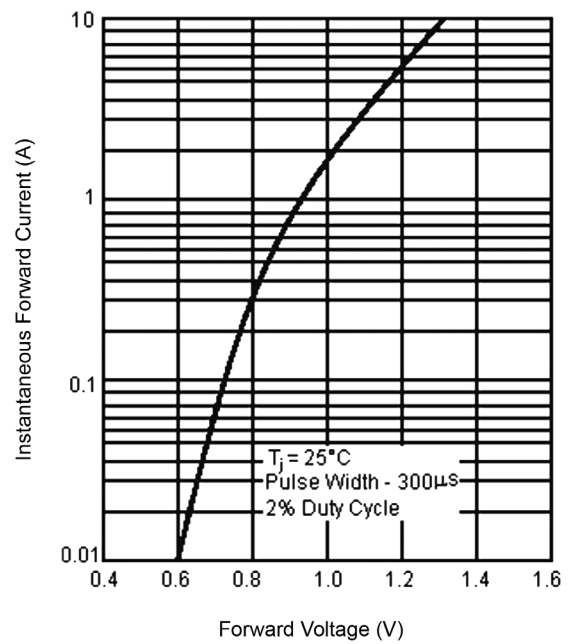
## Ratings and Characteristic Curves



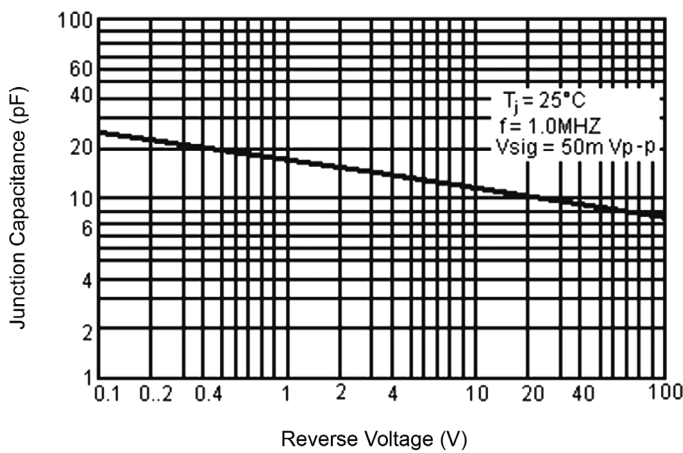
Maximum Non-Repetitive Forward Surge Current



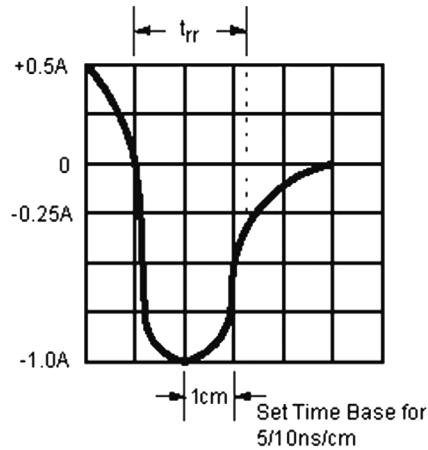
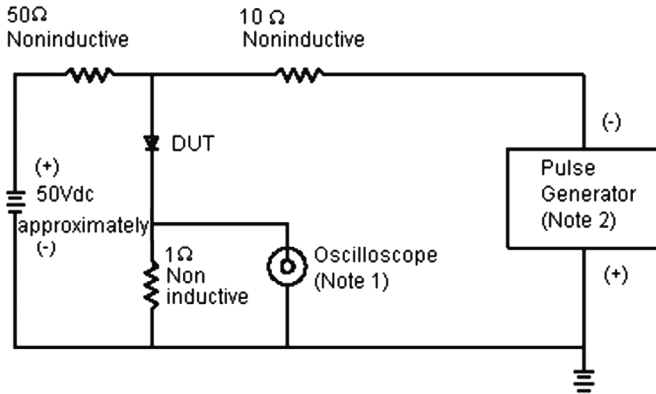
Typical Forward Characteristics



Typical Junction Capacitance



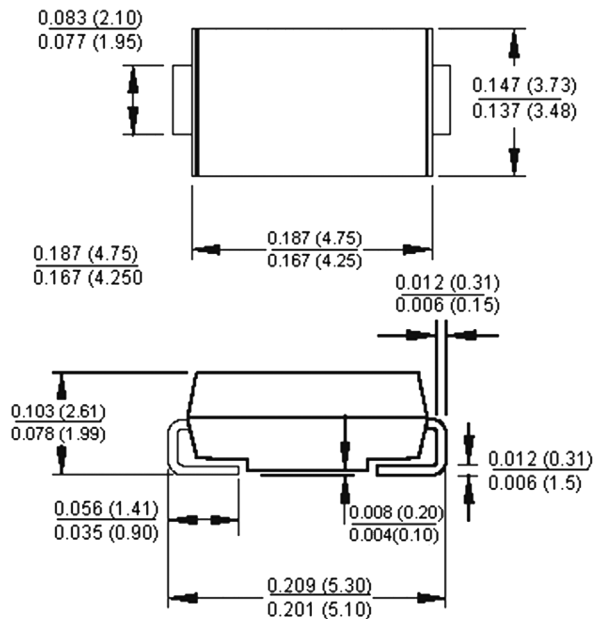
## Reverse Recovery Time Characteristic and Test Circuit Diagram



**Note:**

1. Rise Time = 7ns Maximum Input Impedance = 1MΩ 22pf
2. Rise Time = 10ns Maximum Source Impedance = 50Ω

## SMA/DO-214AA



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Diode, Standard, 2A, 100V	S2B
Diode, Standard, 2A, 800V	S2K
Diode, Standard, 2A, 1,000V	S2M

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