



## 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
Packaging	: 16mm tape per EIA STD RS-481
Weight	: 0.21g

## 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%.

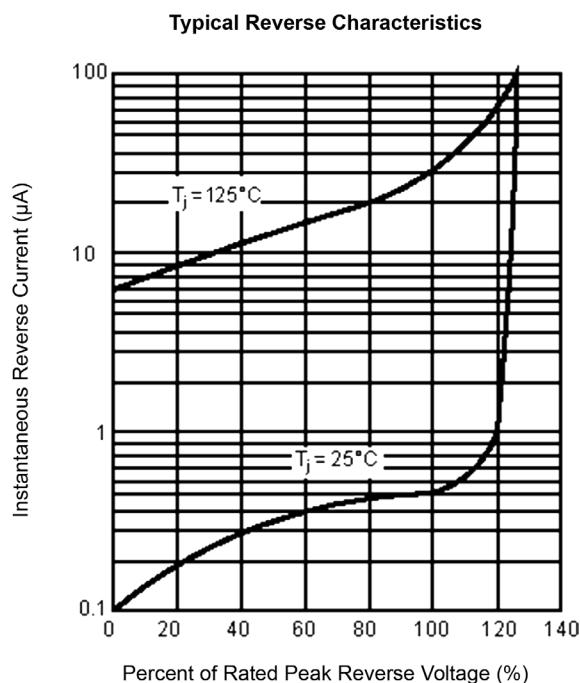
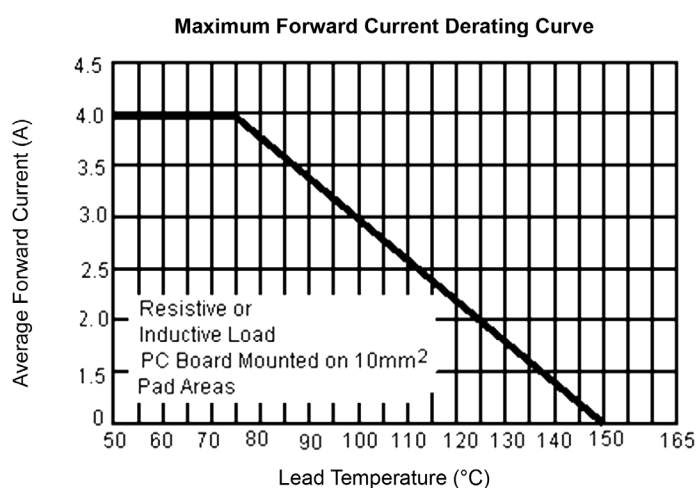
Parameters	Symbol	S4G	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	400	V
Maximum RMS Voltage	$V_{RMS}$	280	
Maximum DC Blocking Voltage	$V_{DC}$	400	
Maximum Average Forward Rectified Current at $T_L = 75^\circ\text{C}$	$I_{(AV)}$	4	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	100	
Maximum Instantaneous Forward Voltage at 4A	$V_F$	1.15	V

Parameters	Symbol	S4G	Units
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	$I_R$	10 250	$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	2.5	$\mu\text{s}$
Typical Junction Capacitance (Note 2)	$C_j$	60	pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$ $R_{\theta JA}$	13 47	$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$		

## Notes:

1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .
2. Measured at 1MHz and Applied  $V_R = 4\text{V}$ .
3. Measured on PC Board with  $0.6" \times 0.6"$  (16mm x 16mm) Copper Pad Areas.

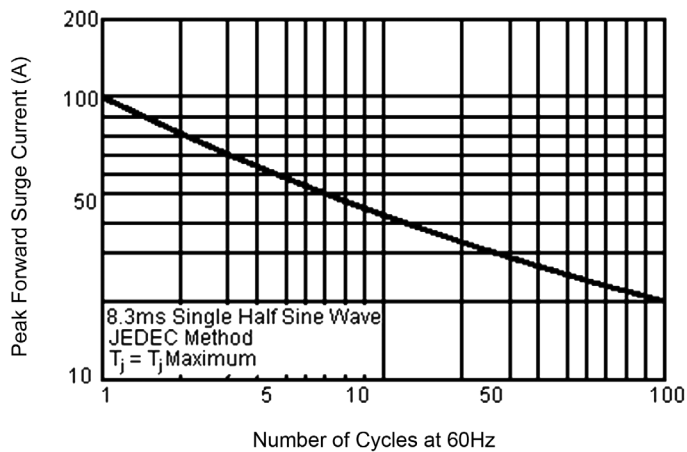
## Ratings and Characteristic Curves (S4J)



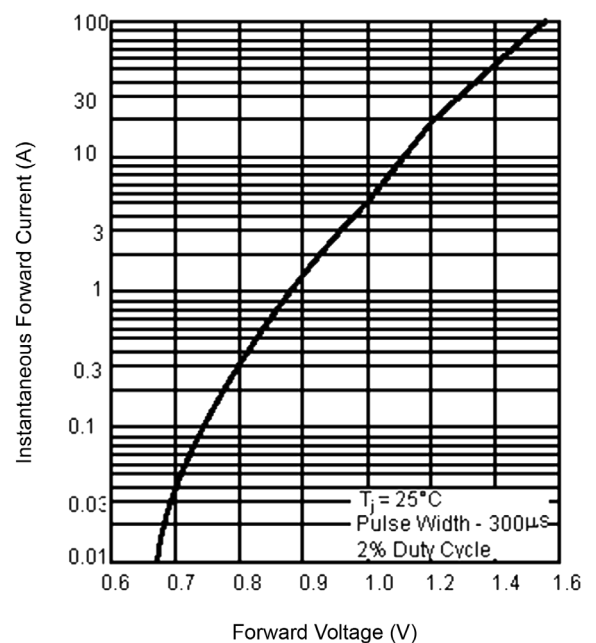
# Standard Diode



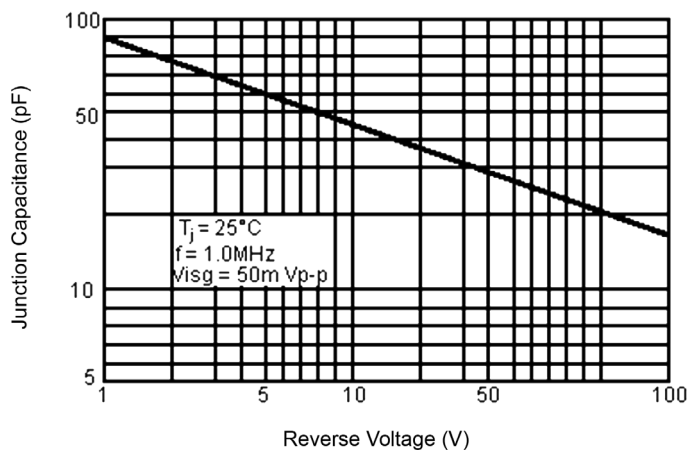
Maximum Non-Repetitive Forward Surge Current



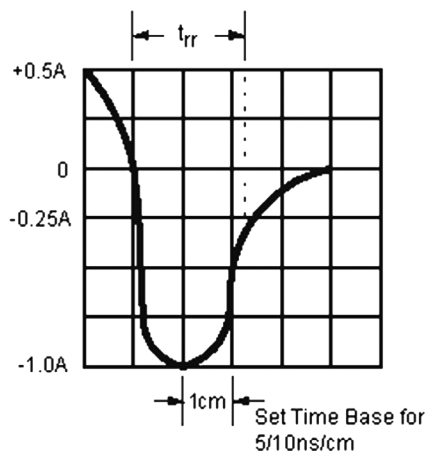
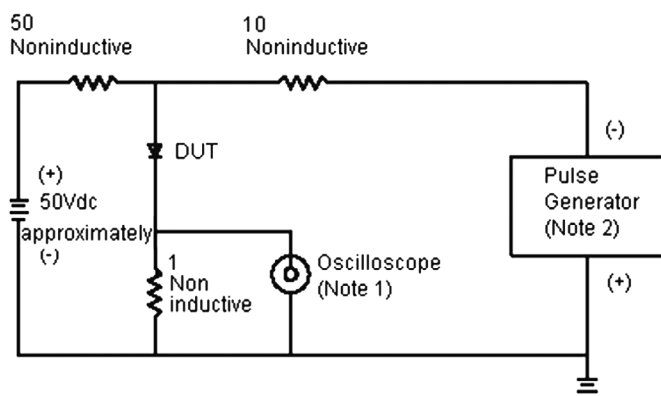
Typical Forward Characteristics



Typical Junction Capacitance



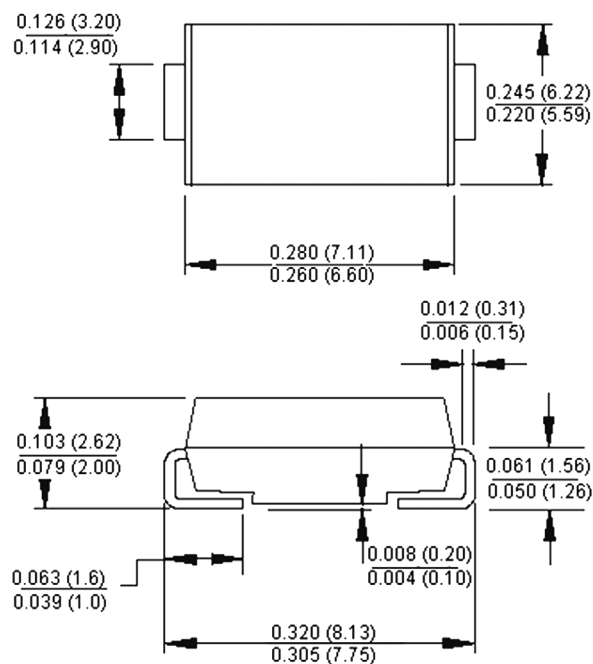
## Reverse Recovery Time Characteristic and Test Circuit Diagram



### Note:

1. Rise Time = 7ns Maximum Input Impedance = 1M $\Omega$  22pf
2. Rise Time = 10ns Maximum Source Impedance = 50 $\Omega$

## SMC/DO-214AB



Dimensions : Inches (Millimetres)

## Part Number Table

Description	Part Number
Diode, Standard, 4A, 600V	S4J

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