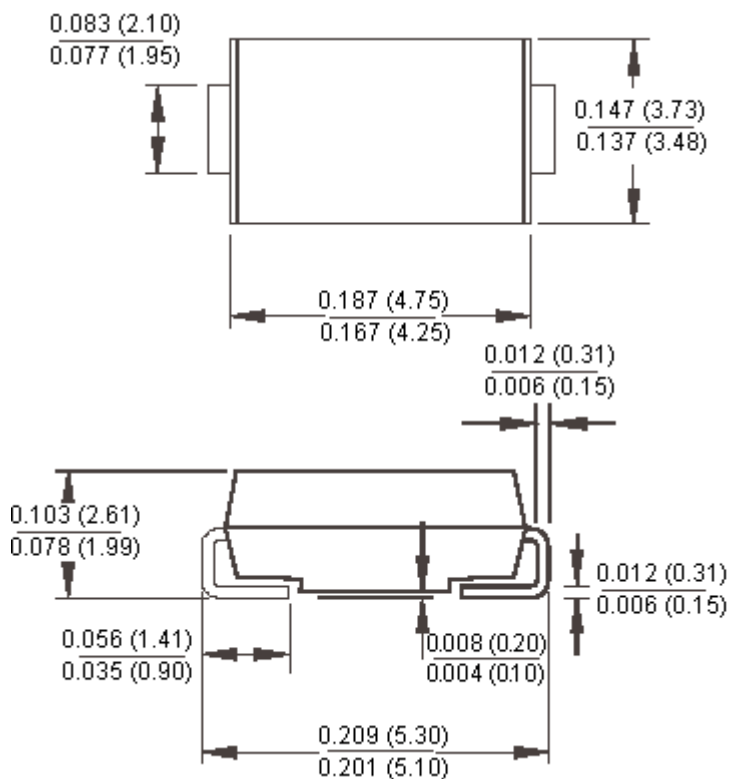




## Features:

- 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.

## SMB/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	RS 2A	RS 2B	RS 2D	RS 2G	RS 2J	RS 2K	RS 2M	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$	$I_{(AV)}$	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	$V_F$	1.3							V
Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 125^\circ\text{C}$	$I_R$	5 200							$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	150				250	500		nS
Typical Junction Capacitance (Note 2)	$C_j$	50							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	55 18							$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$								

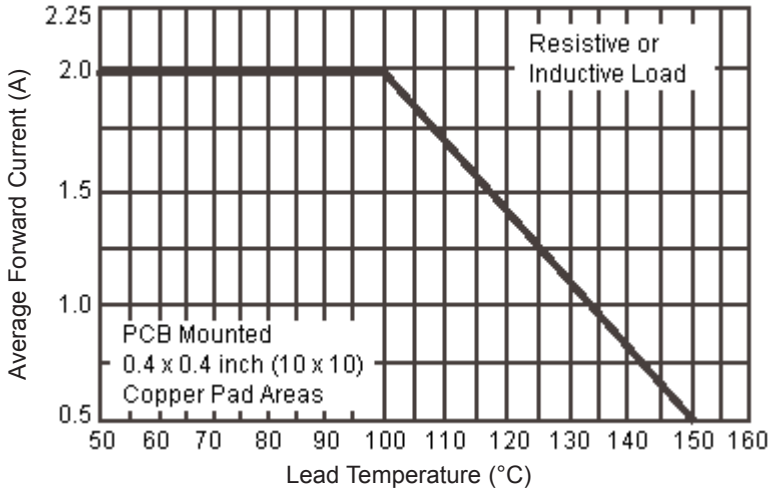
Notes: 1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$ .

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

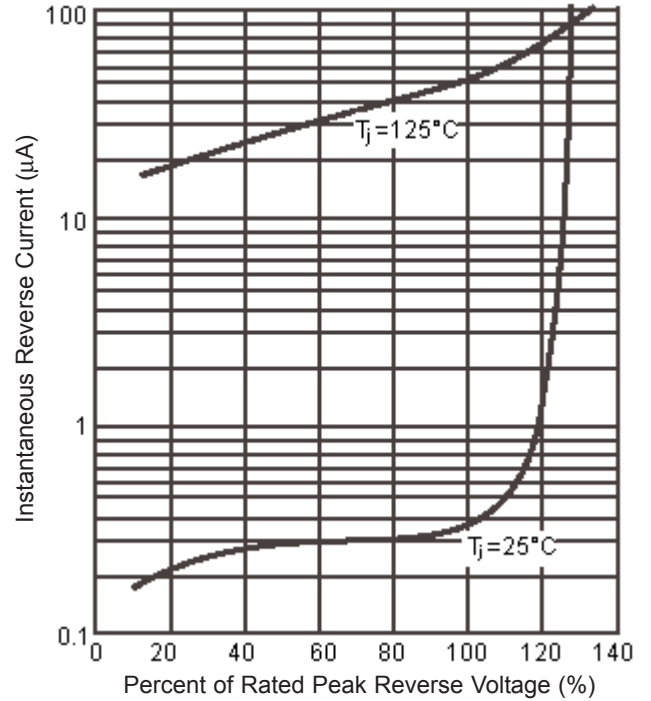
3. Thermal Resistance from Junction to Ambient and Junction to Lead Mounted on PCB with 0.4 x 0.4 inches (10mm x 10mm) Copper Pad Areas.

## Ratings and Characteristic Curves (RS2A thru RS2M)

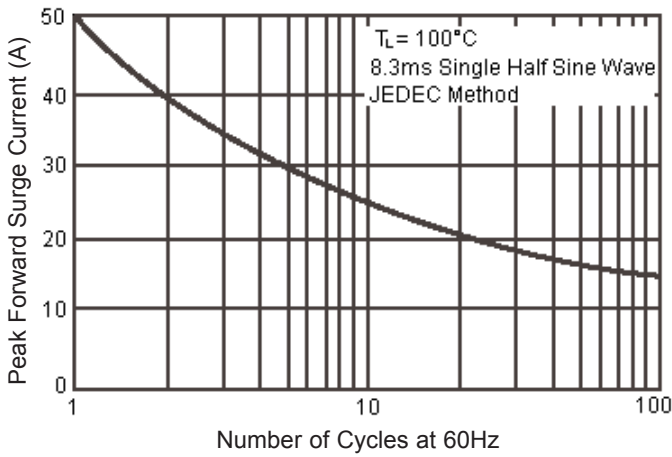
Maximum Forward Current Derating Curve



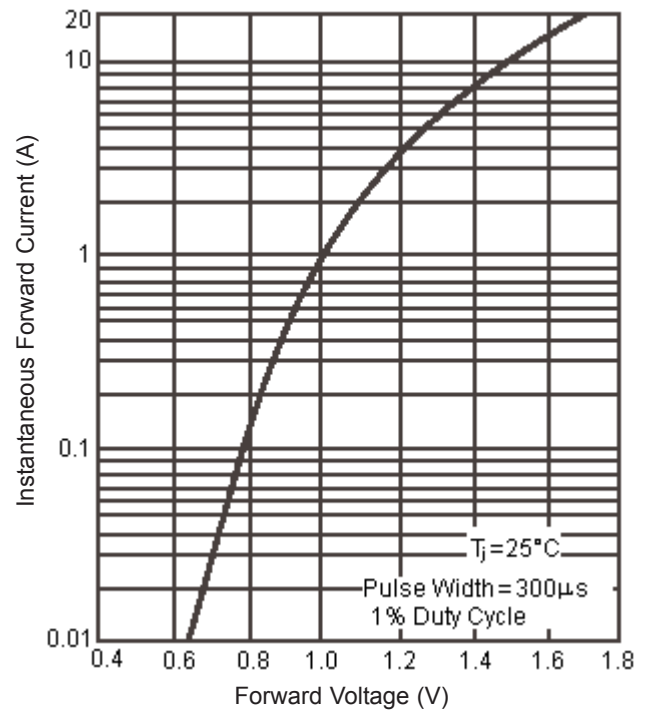
Typical Reverse Characteristics



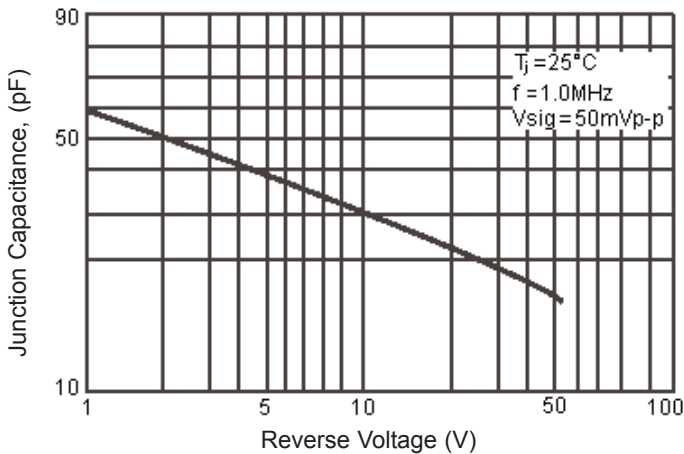
Maximum Non-Repetitive Peak Forward Surge Current



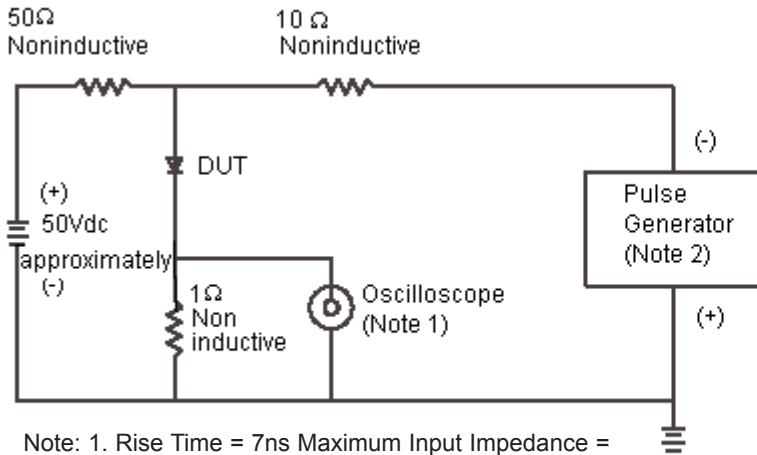
Typical Instantaneous Forward Characteristics



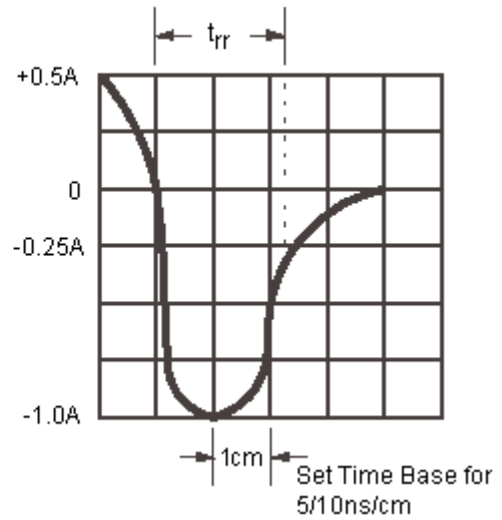
Typical Junction Capacitance



## 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, Fast, 2A, 50V	RS2A
Diode, Fast, 2A, 100V	RS2B
Diode, Fast, 2A, 200V	RS2D
Diode, Fast, 2A, 400V	RS2G
Diode, Fast, 2A, 600V	RS2J
Diode, Fast, 2A, 800V	RS2K
Diode, Fast, 2A, 1000V	RS2M



## Notes:

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