

# Diodes

## RS2 Series

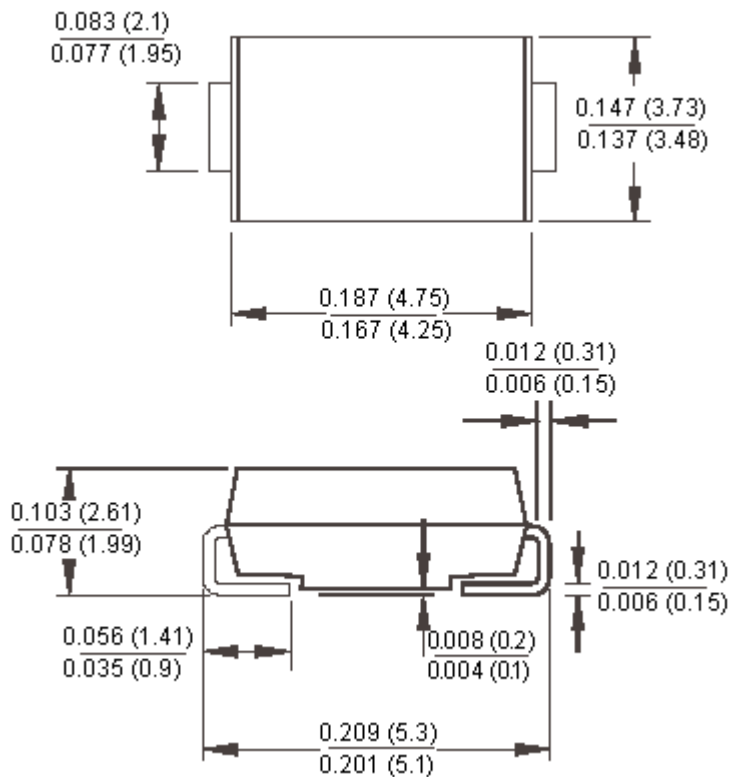


### Features:

- 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	: 12 mm tape per EIA STD RS-481
Weight	: 0.093 g

## RS2 Series

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	Symbol	RS2A	RS2B	RS2D	RS2G	RS2J	RS2K	RS2M	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1,000	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	1,000	
Maximum Average Forward Rectified Current at $T_L = 100^\circ\text{C}$	$I_{(AV)}$	2							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	50							
Maximum Instantaneous Forward Voltage at 2 A	$V_F$	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							$\mu\text{A}$
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							$^\circ\text{C} / \text{W}$
Operating Temperature Range	$T_J$	-55 to +150							$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$								

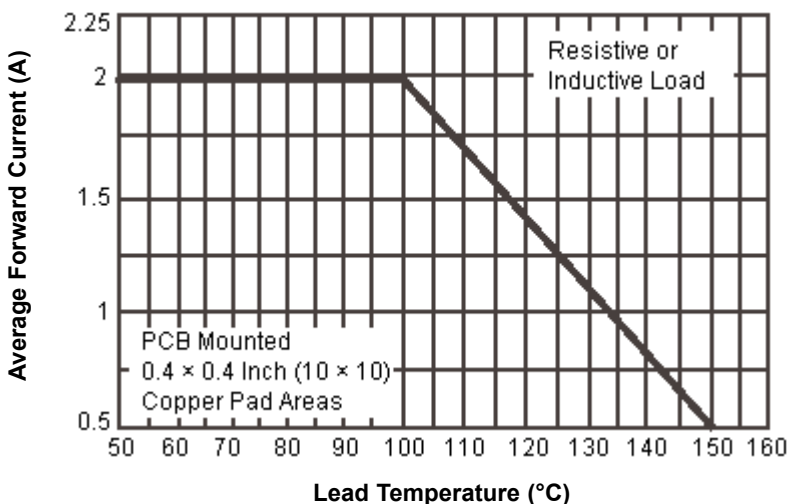
Notes : 1. Reverse recovery test conditions :  $I_F = 0.5 \text{ A}$ ,  $I_R = 1 \text{ A}$ ,  $I_{RR} = 0.25 \text{ A}$

2. Measured at 1 MHz and applied  $V_R = 4 \text{ V}$

3. Thermal resistance from junction to ambient and junction to lead mounted on PCB with  $0.4 \times 0.4$  inches ( $10 \times 10$  mm) copper pad areas

### Ratings and Characteristic Curves (RS2A thru RS2M)

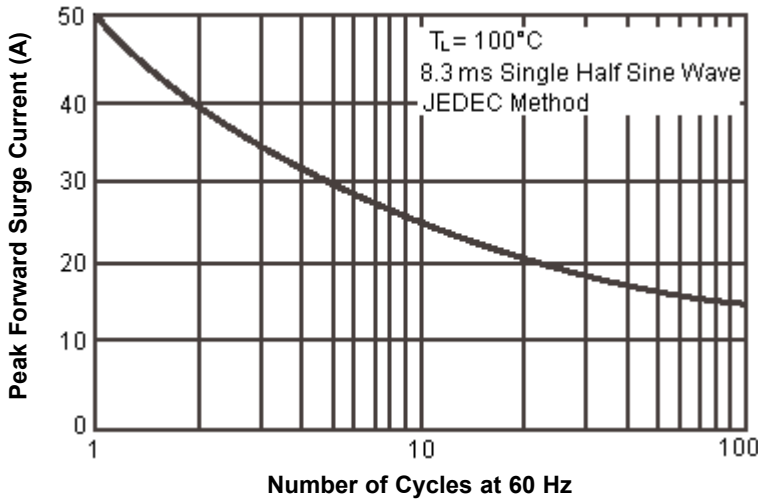
Maximum Forward Current Derating Curve



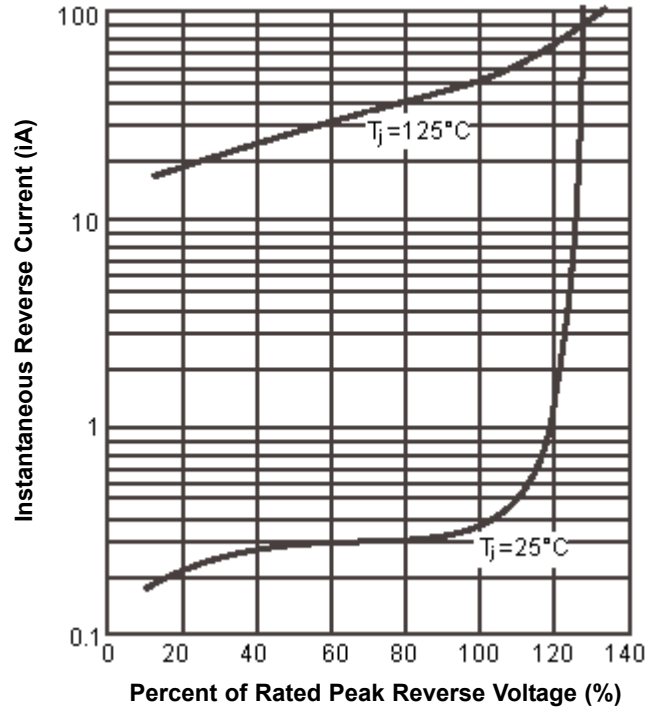
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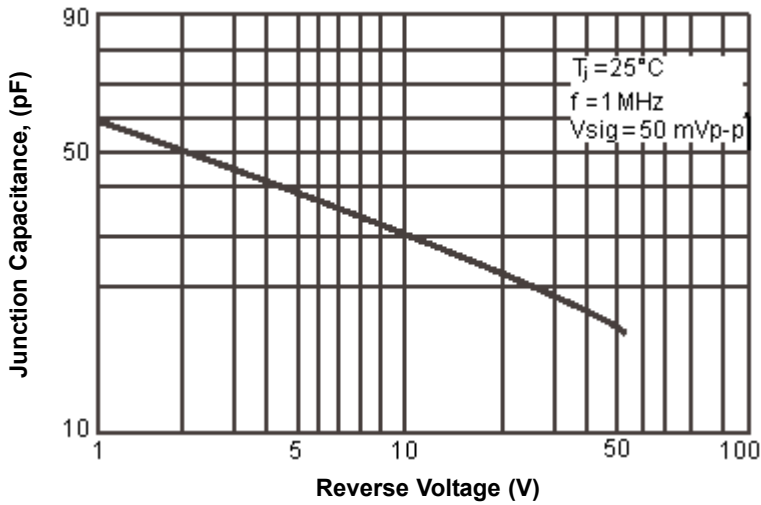
Maximum Non-Repetitive Peak Forward Surge Current



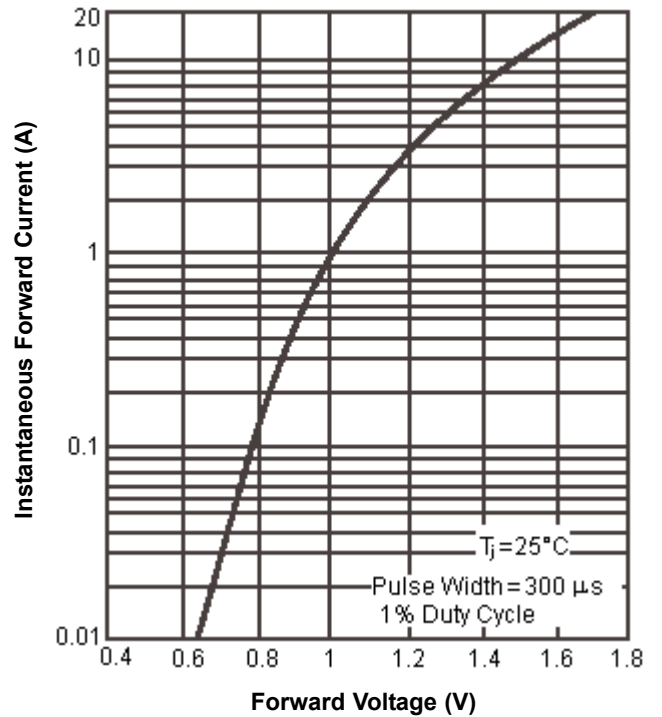
Typical Reverse Characteristics



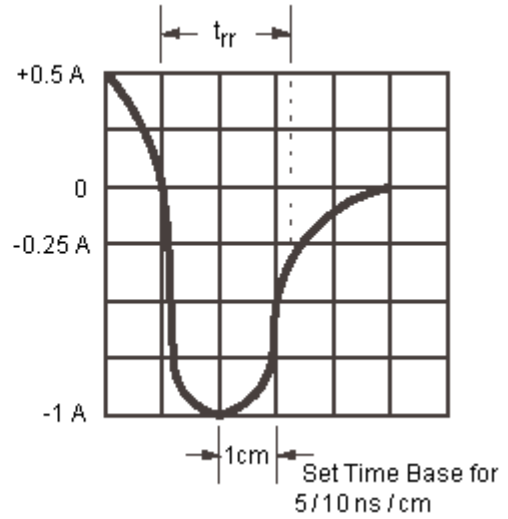
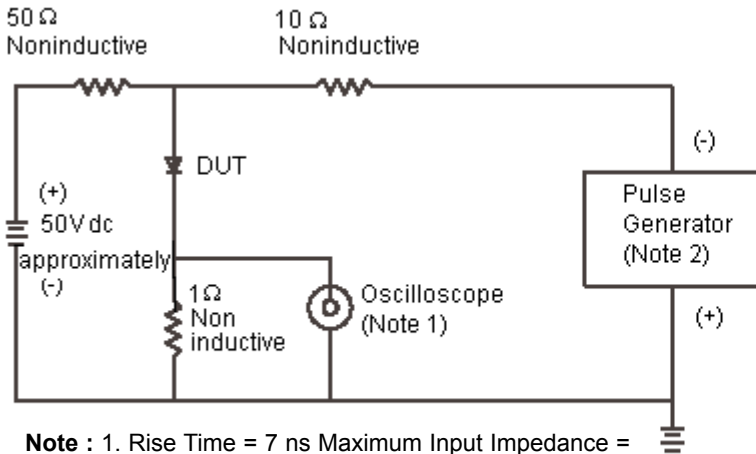
Typical Junction Capacitance



Typical Instantaneous Forward Characteristics



Reverse Recovery Time Characteristic and Test Circuit Diagram



- Note :**
1. Rise Time = 7 ns Maximum Input Impedance = 1 mΩ 22 pf
  2. Rise Time = 10 ns Maximum Source Impedance = 50 Ω

### Part Number Table

Description	Part Number
Diode, Fast, 2 A, 50 V	RS2A
Diode, Fast, 2 A, 100 V	RS2B
Diode, Fast, 2 A, 200 V	RS2D
Diode, Fast, 2 A, 400 V	RS2G
Diode, Fast, 2 A, 600 V	RS2J
Diode, Fast, 2 A, 800 V	RS2K
Diode, Fast, 2 A, 1,000 V	RS2M

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