

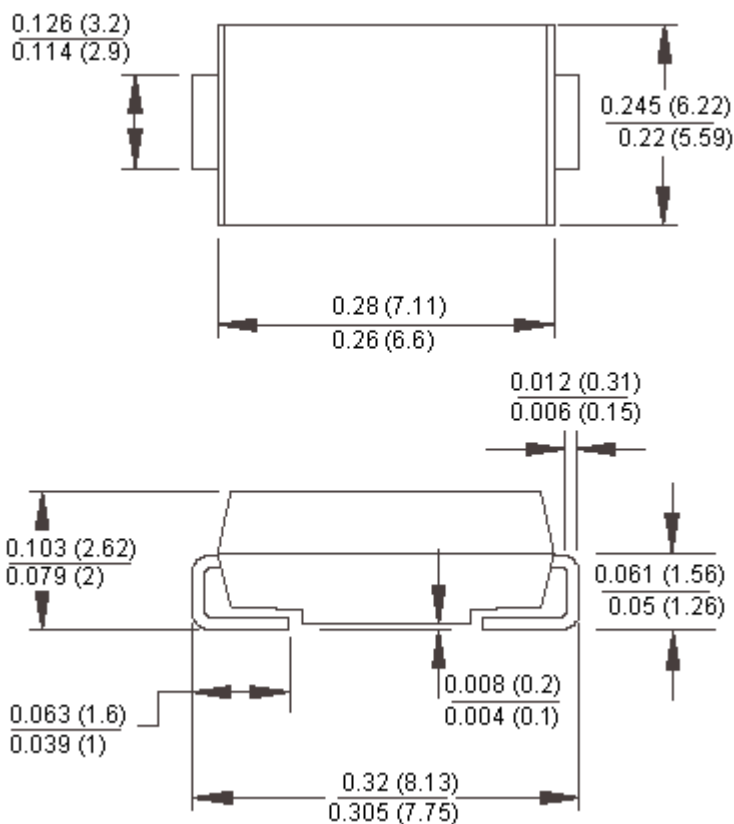


Features:

- 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



SMC/DO-214AB



Dimensions : Inches (Millimetres)

Mechanical Data:

Cases	: Moulded plastic
Terminals	: Pure tin plated, Lead free
Polarity	: Indicated by cathode band
Packing	: 16 mm tape per EIA STD RS-481
Weight	: 0.21 g

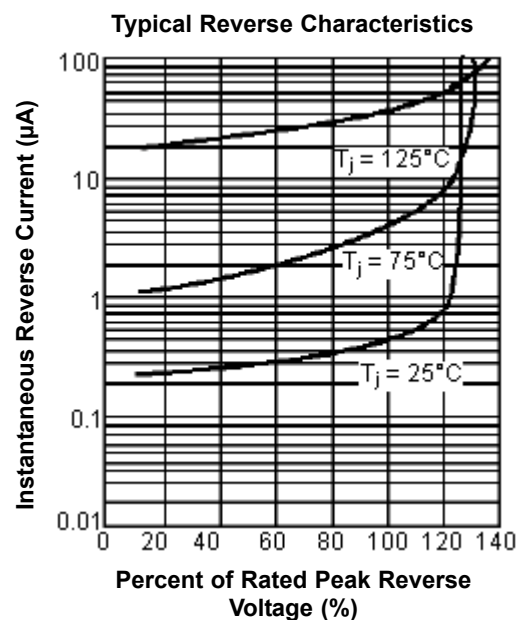
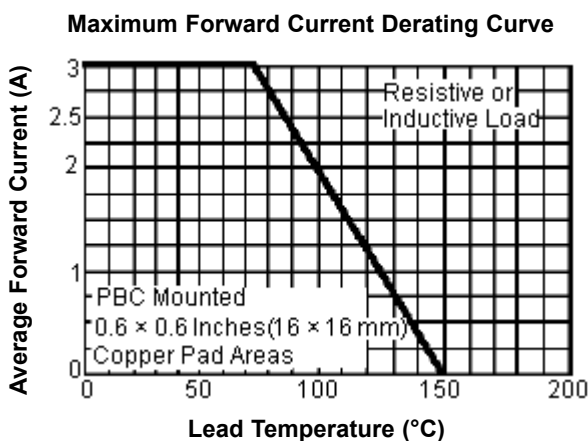
Maximum Ratings and Electrical Characteristics

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%

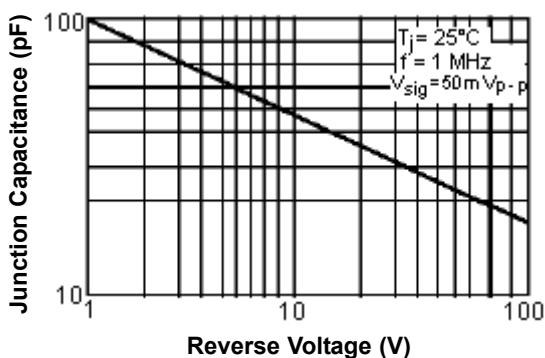
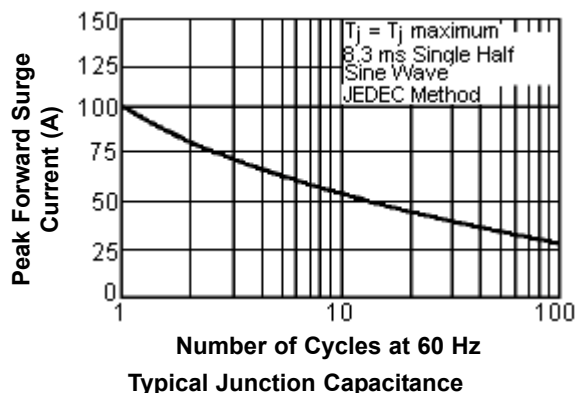
Type Number	Symbol	RS3A	RS3D	RS3G	RS3J	RS3M	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	200	400	600	1,000	V
Maximum RMS Voltage	V _{RMS}	35	140	280	420	700	
Maximum DC Blocking Voltage	V _{DC}	50	200	400	600	1,000	
Maximum Average Forward Rectified Current at T _L = 75°C	I _(AV)	3					A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	100					
Maximum Instantaneous Forward Voltage at 3 A	V _F	1.3					V
Maximum DC Reverse Current at T _A = 25°C at Rated DC Blocking Voltage at T _A = 125°C	I _R	10 250					μA μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	150			250	500	nS
Typical Junction Capacitance (Note 2)	C _j	60					pF
Typical Thermal Resistance (Note 3)	R _{θJA} R _{θJL}	50 15					°C / W
Operating Temperature Range	T _J	-55 to +150					°C
Storage Temperature Range	T _{STG}						

Notes : 1. Reverse Recovery Test Conditions : $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{RR} = 0.25 \text{ A}$
 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 0.6×0.6 inches ($16 \times 16 \text{ mm}$) Copper Pad Areas

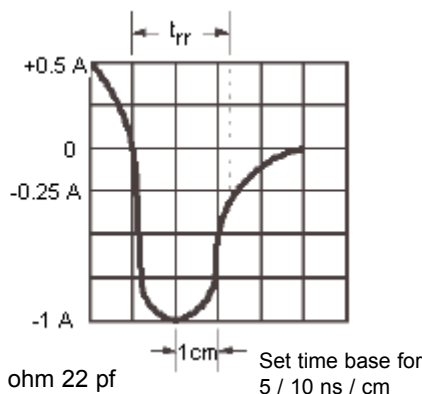
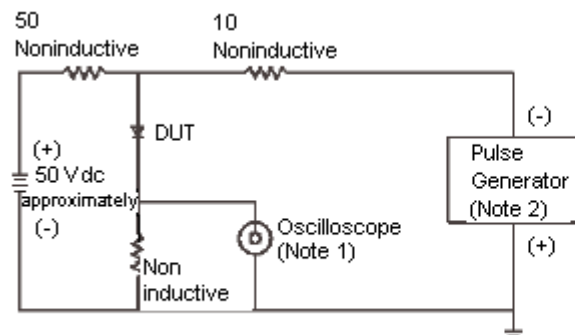
Ratings and Characteristic Curves (RS3A, RS3D, RS3G, RS3J, RS3M)



Maximum Non-Repetitive Peak Forward Surge Current



Reverse Recovery Time Characteristic and Test Circuit Diagram



Note :

1. Rise Time = 7 ns Maximum Input Impedance = 1 mega ohm 22 pf
2. Rise Time = 10 ns Maximum Source Impedance = 50 ohms

Part Number Table

Description	Part Number
Diode, Fast, 3 A, 50 V	RS3A
Diode, Fast, 3 A, 200 V	RS3D
Diode, Fast, 3 A, 400 V	RS3G
Diode, Fast, 3 A, 600 V	RS3J
Diode, Fast, 3 A, 1000 V	RS3M

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