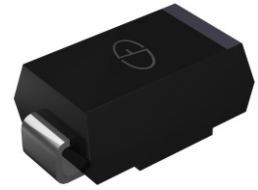


Features

- Glass passivated junction chip
- For surface mounted application
- Low forward voltage drop
- Low profile package
- Built-in strain relief, ideal for automated placement
- Fast switching for high efficiency
- High temperature soldering: 260°C/10 seconds at terminals
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0



DO-214AB (SMC)

Mechanical Data

- Case: Molded plastic
- Terminals: Solder plated
- Polarity: Indicated by cathode end
- Weight: 0.009 ounce, 0.25gram

Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	GN30	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	V
Maximum RMS Voltage	V_{RMS}	840	V
Maximum DC Blocking Voltage	V_{DC}	1200	V
Maximum Average Forward Rectified Current at $T_L=103^{\circ}\text{C}$	$I_{F(AV)}$	3.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) $T_L=75^{\circ}\text{C}$	I_{FSM}	100.0	A
Typical Thermal Resistance per Case ¹	$R_{\theta JA}$	47	$^{\circ}\text{C/W}$
	$R_{\theta JI}$	13	
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Test Conditions	Symbol	GN30	Unit
Maximum Instantaneous Forward Voltage	$I_F=3.0\text{A}$	V_F	1.25	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^{\circ}\text{C}$	I_R	10.0	μA
	$T_A=125^{\circ}\text{C}$		250	
Typical Reverse Recovery Time	$I_F=0.5\text{A}; I_R=1.0\text{A}; I_{tr}=0.25\text{A}$	t_{rr}	1.0	μs
Typical Junction Capacitance	4.0V, 1MHz	C_J	60	pF

Notes:

1. Thermal resistance from junction to ambient and from junction to lead frame P.C.B. mounted on 0.3×0.3"(8.0×8.0mm) copper pad areas.

Typical Characteristics Curves

Fig. 1 - Forward Current Derating Curve

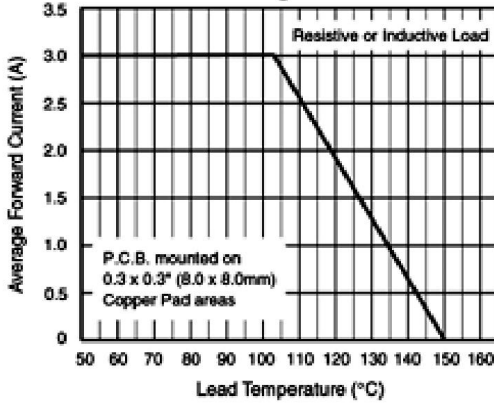


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

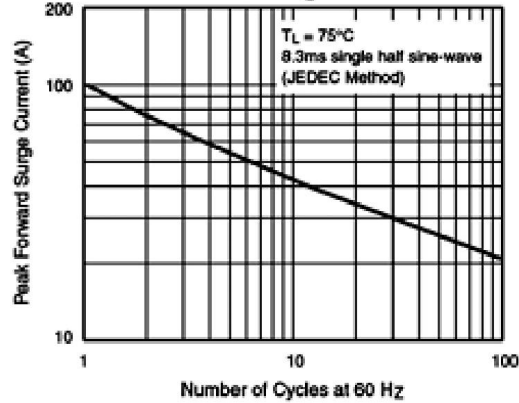


Fig. 3 - Typical Instantaneous Forward Characteristics

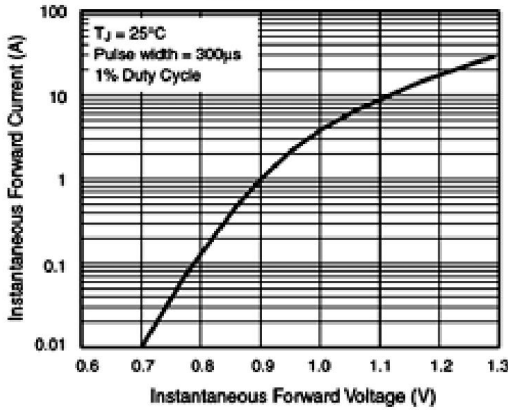


Fig. 4 - Typical Reverse Characteristics

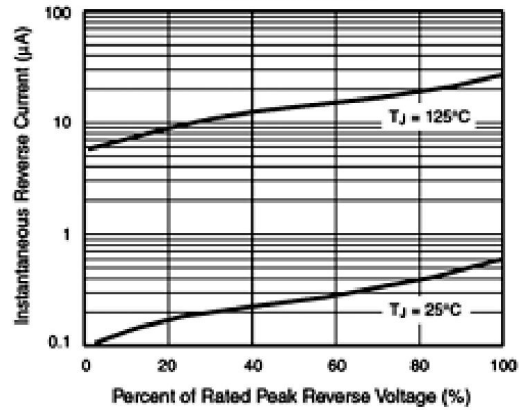


Fig. 5 - Typical Junction Capacitance

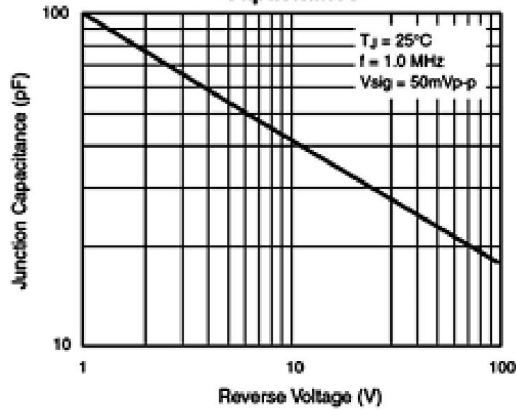
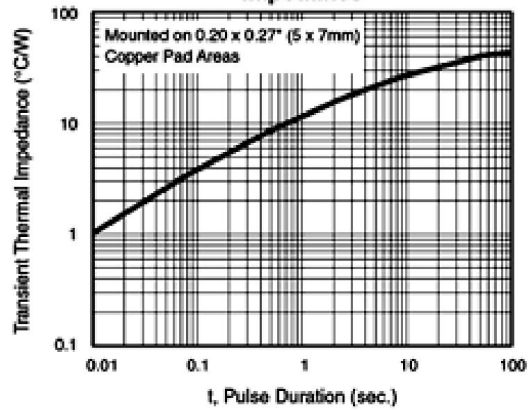
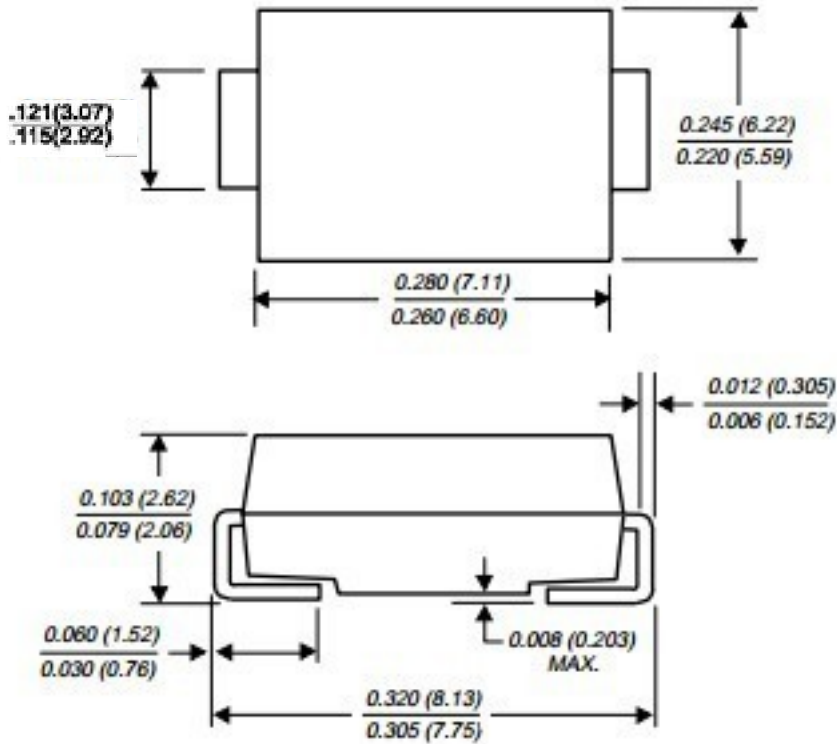


Fig. 6 - Typical Transient Thermal Impedance



Package outline Dimensions DO-214AB (SMC)



Dimensions in inches and (millimeters)