

GN6A thru GN6M

Surface Mount Glass Passivated Standard Rectifier
 Reverse Voltage 50~1000V Forward Current 6A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief, ideal for automated placement
- Glass passivated chip junction



DO-214AB(SMC)

Mechanical Data

- Case: JEDEC DO-214AB (SMC) molded plastic body over glass passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Polarity: Color band denotes cathode end



Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	GN6A	GN6B	GN6D	GN6G	GN6J	GN6K	GN6M	Unit
Maximum Repetitive 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	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at T _L (See Fig.1)	I _{F(AV)}	6.0							A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I _{FSM}	320							A
Operating Junction and Storage Temperature Range	T _J , T _{STG}	- 55 to + 150							°C

Electrical Characteristics (T_A=25°C unless otherwise specified)

Parameter	Test Conditions	Symbol	GN6A	GN6B	GN6D	GN6G	GN6J	GN6K	GN6M	Unit
Maximum Instantaneous Forward Voltage	6A	V _F	1.1							V
Maximum DC Reverse Current at rated DC Blocking Voltage	T _A =25°C	I _R	5							μA
	T _A =100°C		150							
Typical Thermal Resistance ¹⁾	Junction to Ambient	R _{θJA}	30							°C/W
Typical Junction Capacitance	4.0 V, 1 MHz	C _J	150							pF

Note:1)The thermal resistance from junction to ambient,case or lead,mounted on P.C.B with 30×30mm copper pads

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Ratings and Characteristics Curves ($T_A=25^\circ\text{C}$ unless otherwise specified)

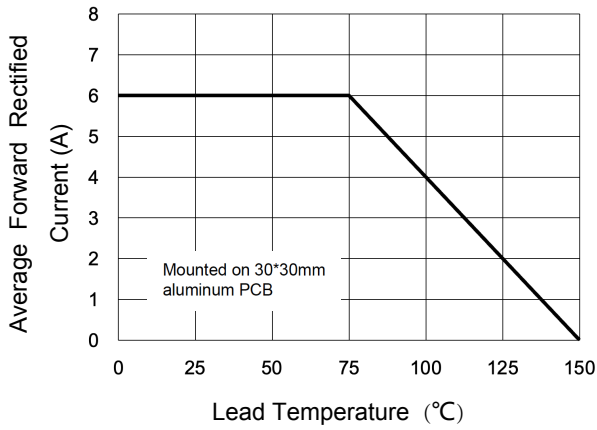


Figure1. Forward Current Derating Curve

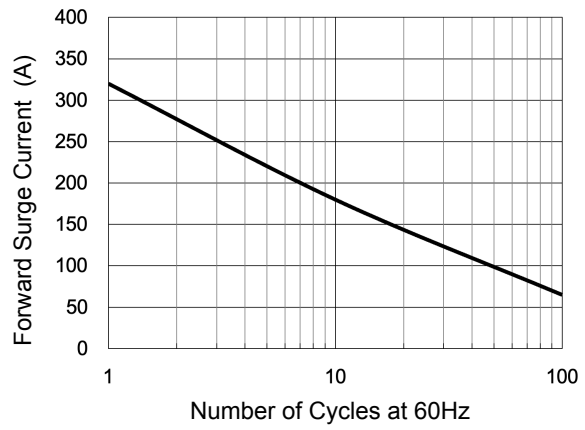


Figure2. Maximum Non-Repetitive Peak Forward Surge Current

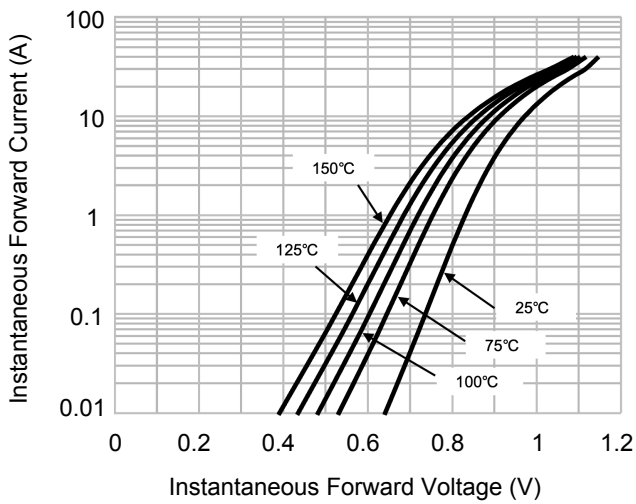


Figure 3. Typical Instantaneous Forward Characteristics

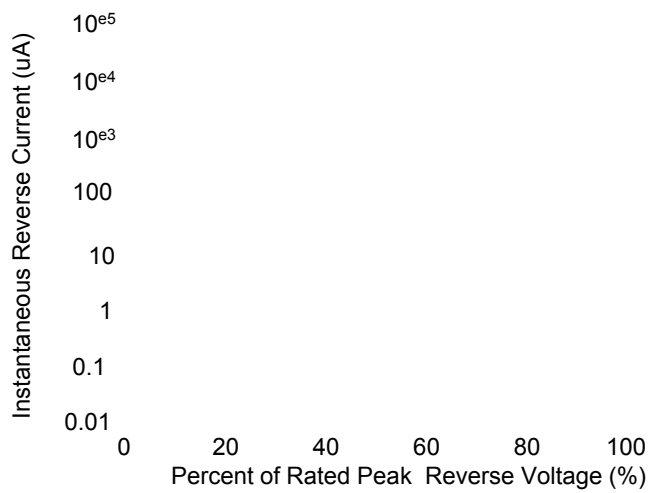


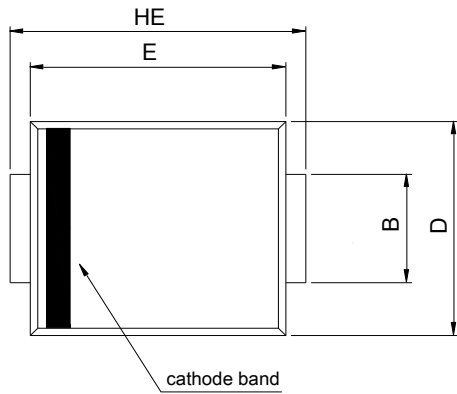
Figure 4. Typical Reverse Characteristics

25°C	75°C
100°C	125°C
150°C	

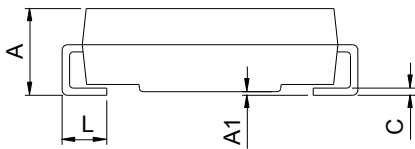
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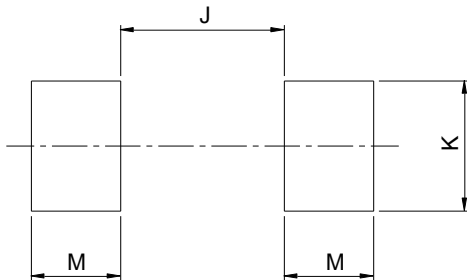
Package Outline Dimensions (SMC)



SMC (DO-214AB)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.00	2.62	0.079	0.103
A1	0.00	0.20	0.000	0.008
B	2.90	3.20	0.114	0.126
C	0.15	0.31	0.006	0.012
D	5.58	6.22	0.220	0.245
E	6.60	7.15	0.260	0.281
HE	7.75	8.15	0.305	0.321
L	0.76	1.60	0.030	0.063



Recommended Pad Layout



SMC Recommended Pad Layout (Reference ONLY)				
DIM	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	4.60	-	0.181
K	3.20	-	0.126	-
M	2.00	-	0.079	-