GOOD-ARK
SEMICONDUCTOR

GN3A thru GN3M

Surface Mount Glass Passivated Standard Rectifiers
Reverse Voltage 50V to 1000V Forward Current 3.0A

Features

- Glass passivated chip junction
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260°C, 10s
- Halogen-free according to IEC 61249-2-21 definition
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

RoHS
COMPLIANT

DO-214AB(SMC)

Applications

- For use of general purpose rectification in lighting, cellular phone, portable device, and power supplies.

(T $_A$=25 °C unless otherwise noted)

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 TL (See Fig.1)	$I_{F(AV)}$	3.0							A
Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	100							A
Rating for Fusing (t<8.3ms)	I t	41.7							A sec
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							°C

(T_A=25 °C unless otherwise noted)

Maximum Instantaneous Forward Voltage	I_F=3A, T_A=25	V	1.15						Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T_A=25	I	10.0						μA
	T_A=125		250						
Typical Junction Capacitance	4.0 V, 1 MHz	C	60						pF
Typical Reverse Recovery Time	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A	rr	1.8						uS
Typical Thermal Resistance	Junction to Ambient	θJA	65						/W
	Junction to Case	θJC	10						
	Junction to Lead	θJL	15						

Note:

1. The thermal resistance from junction to ambient,case or lead,mounted on P.C.B with 8.0×8.0mm copper pads, 2 OZ, FR4 PCB

Ratings and Characteristics Curves (T_A=25°C unless otherwise noted)

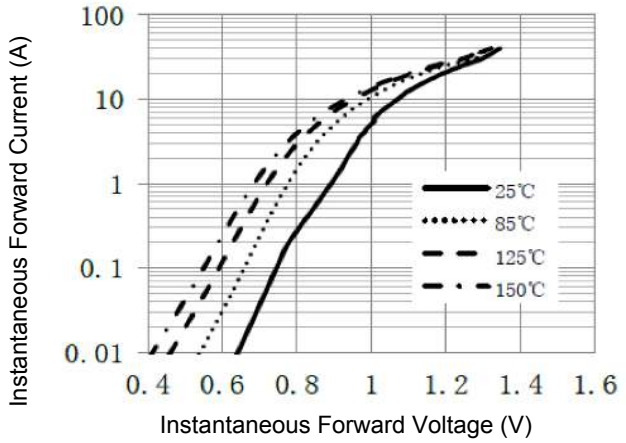

Figure 1. Typical Instantaneous Forward Characteristics

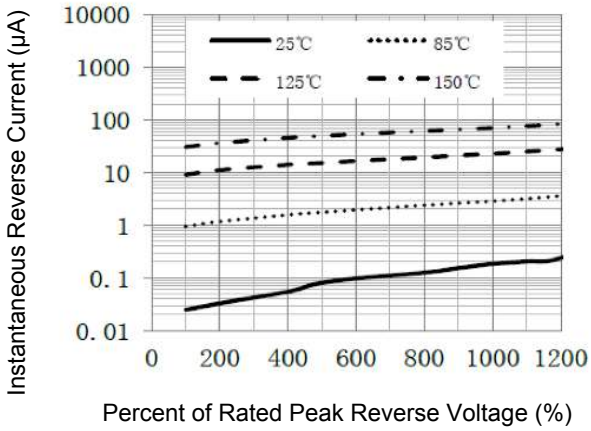

Figure 2. Typical Reverse Characteristics

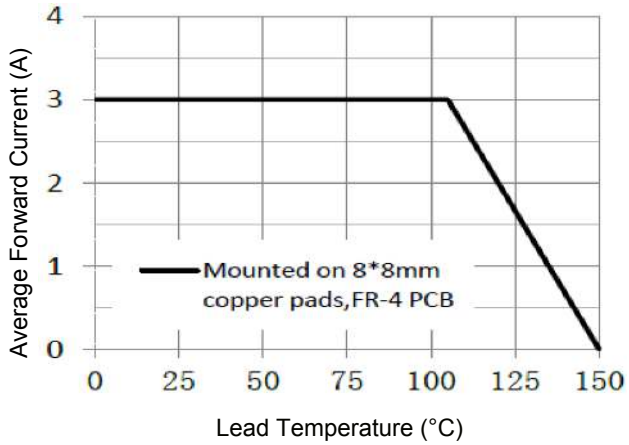

Figure 3. Forward Current Derating Curve

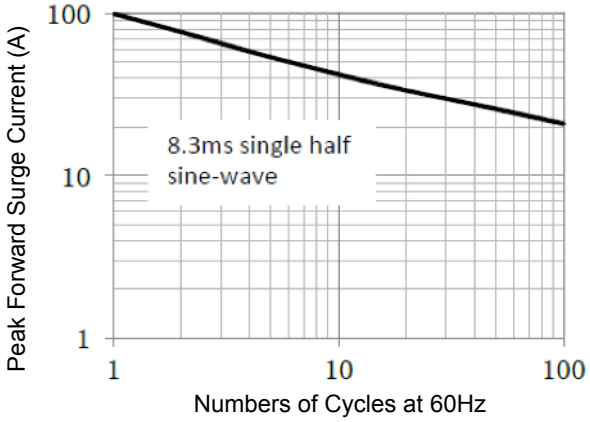

Figure 4. Maximum Non-Repetitive Forward Surge Current

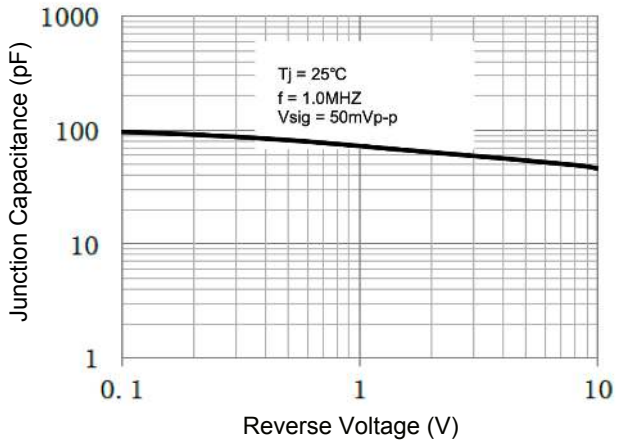

Figure 5. Typical Junction Capacitance

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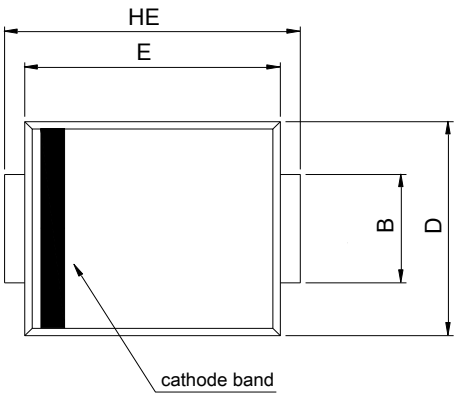
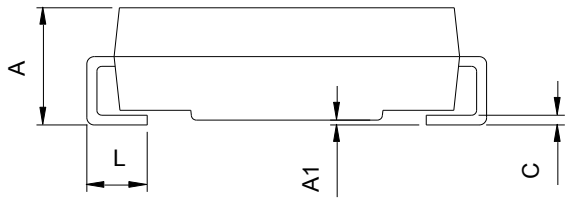
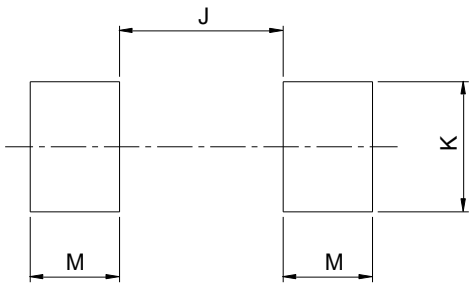
Package Outline Dimensions (SMC)





Symbol	Dimensions in Millimeters		Dimensions in 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	-