

GARGOA thru GARGOM

Fast Recovery Surface Mount Rectifiers
 Reverse Voltage 50 to 1000V Forward Current 1.5A

Features

- Glass passivated chip
- Fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- AEC-Q101 qualified



DO-214AA(SMB)

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

Parameter	Symbol	GARG OA	GARG OB	GARG OD	GARG OG	GARG OJ	GARG OK	GARG OM	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 (T _L =90°C)	I _(AV)	1.5							A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load	I _{FSM}	50							A
Typical Thermal Resistance, Junction to Lead	R _{θJL}	18							°C/W
Operating Junction Temperature Range	T _J	-55 To +150							°C
Storage Temperature Range	T _{STG}	-55 To +150							°C

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

Parameter	Symbol	Conditions	GARG OA	GARG OB	GARG OD	GARG OG	GARG OJ	GARG OK	GARG OM	Unit
Maximum Instantaneous Forward Voltage	V _F	I _R =1.5A	1.3				1.3	1.3		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	I _R	T _J =25°C	5				5	5		μA
		T _J =125°C	200				200	200		
Maximum Reverse Recovery Time ¹	t _{rr}	I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	150				250	500		nS
Typical Junction Capacitance ²	C _J	4.0 V, 1 MHz	50							pF

Notes: 1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

2. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.

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

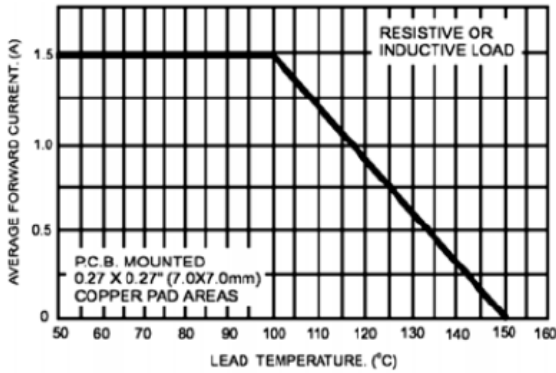


Figure 1. Maximum Forward Current Derating Curve

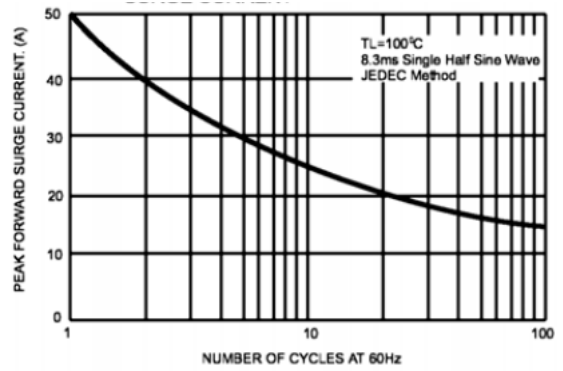


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

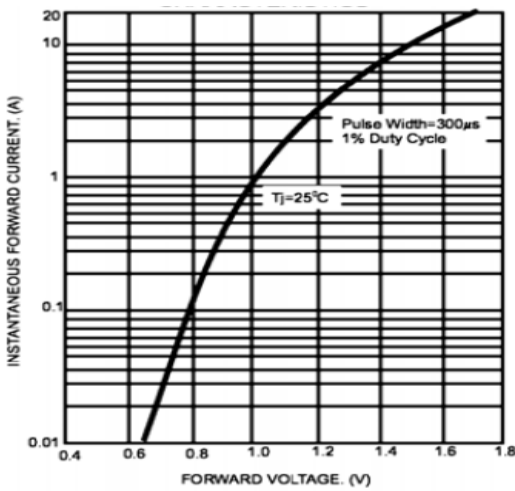


Figure 3. Typical Instantaneous Forward Characteristics

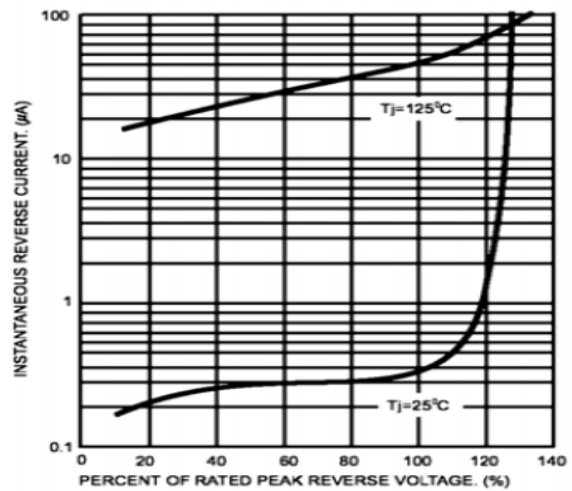


Figure 4. Typical Reverse Characteristics

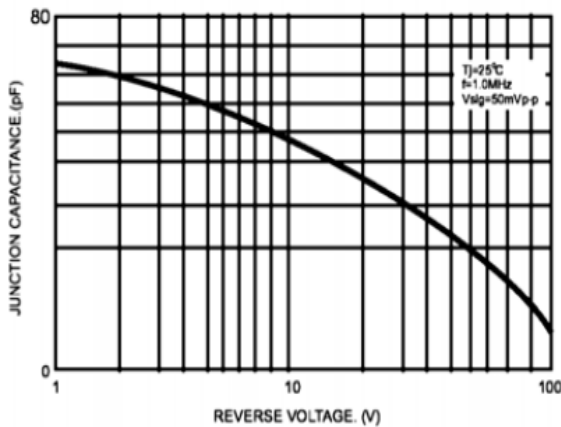
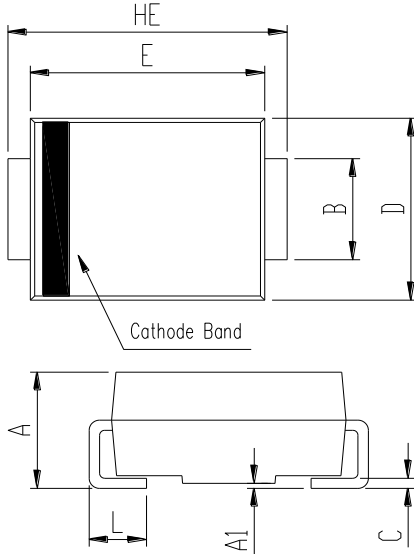


Figure 5. Typical Junction Capacitance

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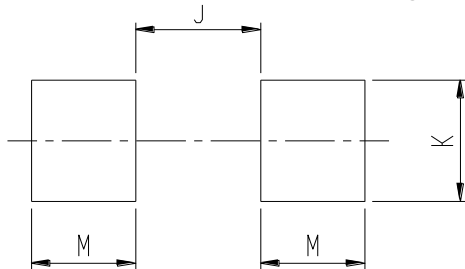
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Package Outline Dimensions DO214-AA(SMB)



DIM	SMB (DO-214AA)			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.99	2.61	0.078	0.103
A1	0.00	0.20	0.000	0.008
B	1.93	2.08	0.076	0.082
C	0.15	0.31	0.006	0.012
D	3.48	3.73	0.137	0.147
E	4.25	4.75	0.167	0.187
HE	5.26	5.46	0.207	0.215
L	0.90	1.41	0.035	0.056

Recommended Pad Layout



DIM	Recommended Pad Layout (Reference Only)			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	-	2.60	-	0.102
K	2.20	-	0.087	-
M	1.80	-	0.071	-