

Vishay General Semiconductor

Surface Mount Glass Passivated Junction Rectifier

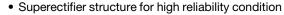
SUPERECTIFIER®



DO-213AA (GL34)

PRIMARY CHARACTERISTICS						
I _{F(AV)}	0.5 A					
V_{RRM}	50 V, 100 V, 200 V, 400 V, 600 V					
I _{FSM}	10 A					
V _F	1.2 V, 1.3 V					
I _R	5.0 μA					
T _J max.	175 °C					
Package	DO-213AA (GL34)					
Diode variations	Single die					

FEATURES





- Ideal for automated placement
- radar for datomated placemen
- Low forward voltage drop

RoHS

- Low leakage current
- Meets MSL level 1, per J-STD-020, LF maximum COMPLIANT peak of 260 °C
- AEC-Q101 qualified
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

TYPICAL APPLICATIONS

For use in general purpose rectification of power supplies, inverters, converters and freewheeling diodes for consumer, automotive and telecommunication.

MECHANICAL DATA

Case: DO-213AA, molded epoxy over glass body
Molding compound meets UL 94 V-0 flammability rating
Base P/N-E3 - RoHS-compliant, commercial grade
Base P/NHE3 - RoHS-compliant, AEC-Q101 gualified

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD 22-B102

E3 suffix meets JESD 201 class 1A whisker test, HE3 suffix meets JESD 201 class 2 whisker test

Polarity: Two bands indicate cathode end - 1st band denotes device type and 2nd band denotes repetitive peak reverse voltage rating

MAXIMUM RATINGS (T _A = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL GL34A GL3	GL34B	GL34B GL34D	GL34G	GL34J	UNIT	
STANDARD RECOVERY DEVICE: 1ST BAND IS WHITE	STWIDOL	GLOTA	GL34A GL34B				GLOTG
Polarity color bands (2 nd band)		Gray	Red	Orange	Yellow	Green	
Max. repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	V
Max. RMS voltage	V _{RMS}	35	70	140	280	420	V
Max. DC blocking voltage	V_{DC}	50	100	200	400	600	V
Max. average forward rectified current at T _L = 75 °C	I _{F(AV)}	0.5				Α	
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	10				А	
Max. full load reverse current, full cycle average at $T_A = 55 ^{\circ}\text{C}$	I _{R(AV)}	30				μΑ	
Operating junction and storage temperature range	T _J , T _{STG}	- 65 to + 175				°C	



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ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)								
PARAMETER	TEST CONDITIONS	SYMBOL	GL34A GL34B GL34D GL34G		GL34J	UNIT		
Max. instantaneous forward voltage	0.5 A	V _F	1.2		1.3	V		
Max. DC reverse current at rated	T _A = 25 °C	- I _R	5.0			μA		
DC blocking voltage	T _A = 125 °C	'H	50			μΛ		
Typical reverse recovery time	$I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A}, I_{rr} = 0.25 \text{ A}$	t _{rr}	1.5			μs		
Typical junction capacitance	4.0 V, 1 MHz	CJ	4.0			pF		

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)							
PARAMETER	SYMBOL	SYMBOL GL34A GL34B GL34D GL34G GL34J U					UNIT
Maximum thermal resistance	R _{0JA} (1)	150					°C/W
Waxiiiuiii tileiiiai resistance	R _{0JT} (2)	70					C/VV

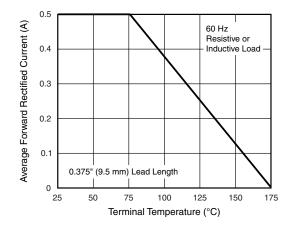
Notes

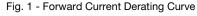
- (1) Thermal resistance from junction to ambient, 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pads to each terminal
- (2) Thermal resistance from junction to terminal, 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pads to each terminal

ORDERING INFORMATION (Example)								
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE				
GL34G-E3/98	0.036	98	2500	7" diameter plastic tape and reel				
GL34G-E3/83	0.036	83	9000	13" diameter plastic tape and reel				
GL34GHE3/98 (1)	0.036	98	2500	7" diameter plastic tape and reel				
GL34GHE3/83 (1)	0.036	83	9000	13" diameter plastic tape and reel				

Note

RATINGS AND CHARACTERISTICS CURVES (T_A = 25 °C unless otherwise noted)





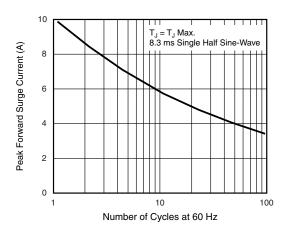


Fig. 2 - Max. Non-Repetitive Peak Forward Surge Current

⁽¹⁾ AEC-Q101 qualified



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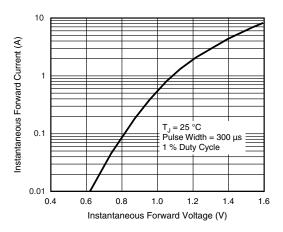


Fig. 3 - Typical Instantaneous Forward Characteristics

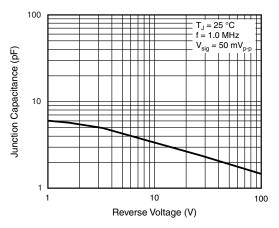


Fig. 5 - Typical Junction Capacitance

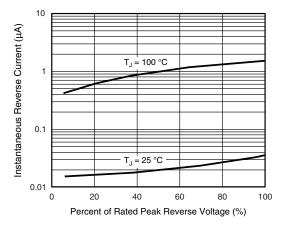
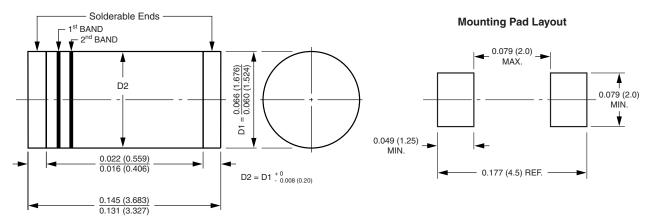


Fig. 4 - Typical Reverse Characteristics

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

DO-213AA (GL34)



¹st band denotes type and polarity

^{2&}lt;sup>nd</sup> band denotes voltage type



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