

# GL34G/1 Datasheet

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DiGi Electronics Part Number	GL34G/1-DG
Manufacturer	<a href="#">Vishay General Semiconductor - Diodes Division</a>
Manufacturer Product Number	GL34G/1
Description	DIODE MINIMELF 400V 0.5A 175C
Detailed Description	Diode 400 V 500mA Surface Mount DO-213AA (GL34)

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## Purchase and inquiry

Manufacturer Product Number:

GL34G/1

Series:

SUPERECTIFIER®

Technology:

Standard

Current - Average Rectified (Io):

500mA

Speed:

Standard Recovery >500ns, > 200mA (Io)

Current - Reverse Leakage @ Vr:

5 µA @ 400 V

Mounting Type:

Surface Mount

Supplier Device Package:

DO-213AA (GL34)

Base Product Number:

GL34

Manufacturer:

Vishay General Semiconductor - Diodes Division

Product Status:

Obsolete

Voltage - DC Reverse (Vr) (Max):

400 V

Voltage - Forward (Vf) (Max) @ If:

1.2 V @ 500 mA

Reverse Recovery Time (trr):

1.5 µs

Capacitance @ Vr, F:

4pF @ 4V, 1MHz

Package / Case:

DO-213AA (Glass)

Operating Temperature - Junction:

-65°C ~ 175°C

## Environmental & Export classification

RoHS Status:

RoHS non-compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0070

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

EAR99

## Surface-Mount Glass Passivated Junction Rectifier

Superectifier®


**GL34 (DO-213AA)**

### FEATURES

- Superectifier structure for high reliability condition
- Ideal for automated placement
- Low forward voltage drop
- Low leakage current
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### TYPICAL APPLICATIONS

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

### MECHANICAL DATA

**Case:** GL34 (DO-213AA), molded epoxy over glass body  
Molding compound meets UL 94 V-0 flammability rating  
Base P/N-E3 - RoHS-compliant, commercial grade

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

E3 suffix meets JESD 201 class 1A whisker test

**Polarity:** two bands indicate cathode end - 1<sup>st</sup> band denotes device type and 2<sup>nd</sup> band denotes repetitive peak reverse voltage rating

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 $\mu$ A
$T_J$ max.	175 °C
Package	GL34 (DO-213AA)
Circuit configurations	Single

MAXIMUM RATINGS ( $T_A = 25$ °C unless otherwise noted)								
PARAMETER	SYMBOL	GL34A	GL34B	GL34D	GL34G	GL34J	UNIT	
<b>STANDARD RECOVERY DEVICE: 1<sup>ST</sup> BAND IS WHITE</b>								
Polarity color bands (2 <sup>nd</sup> 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						A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	10						A
Max. full load reverse current, full cycle average at $T_A = 55$ °C	$I_{R(AV)}$	30						$\mu$ A
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175						°C



ELECTRICAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)									
PARAMETER	TEST CONDITIONS	SYMBOL	GL34A	GL34B	GL34D	GL34G	GL34J	UNIT	
Max. instantaneous forward voltage	0.5 A	V <sub>F</sub>	1.2				1.3		V
Max. DC reverse current at rated DC blocking voltage	T <sub>A</sub> = 25 °C	I <sub>R</sub>	5.0						μA
	T <sub>A</sub> = 125 °C		50						
Typical reverse recovery time	I <sub>F</sub> = 0.5 A, I <sub>R</sub> = 1.0 A, I <sub>rr</sub> = 0.25 A	t <sub>rr</sub>	1.5						μs
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	4.0						pF

THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	GL34A	GL34B	GL34D	GL34G	GL34J	UNIT		
Maximum thermal resistance	R <sub>θJA</sub> <sup>(1)</sup>	150							°C/W
	R <sub>θJT</sub> <sup>(2)</sup>	70							

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



## RATINGS AND CHARACTERISTICS CURVES ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

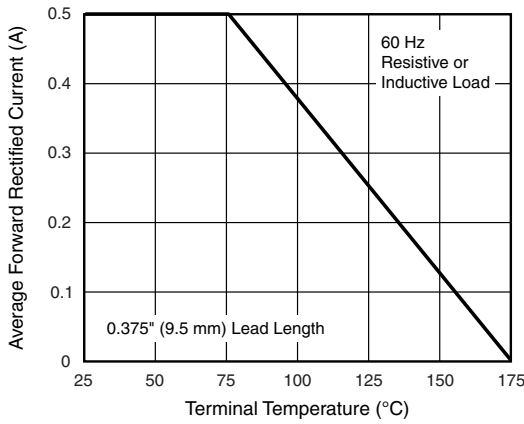


Fig. 1 - Forward Current Derating Curve

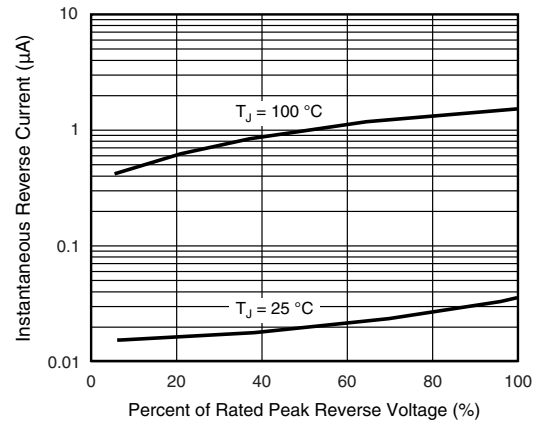


Fig. 4 - Typical Reverse Characteristics

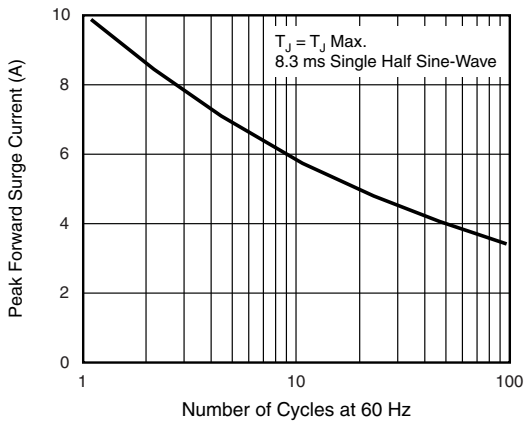


Fig. 2 - Max. Non-Repetitive Peak Forward Surge Current

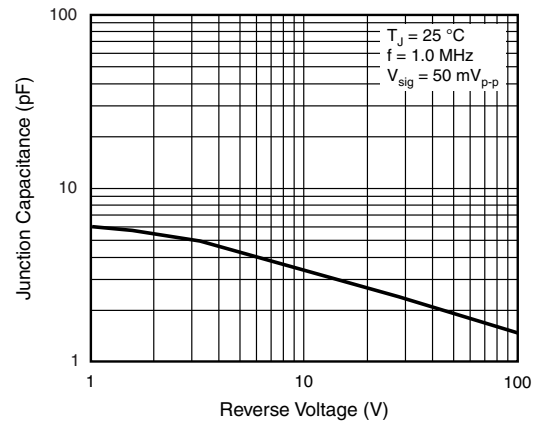


Fig. 5 - Typical Junction Capacitance

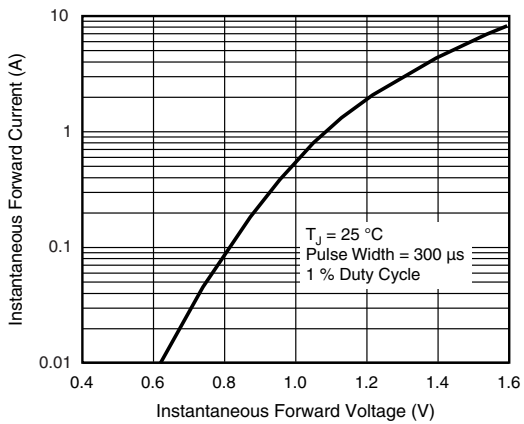
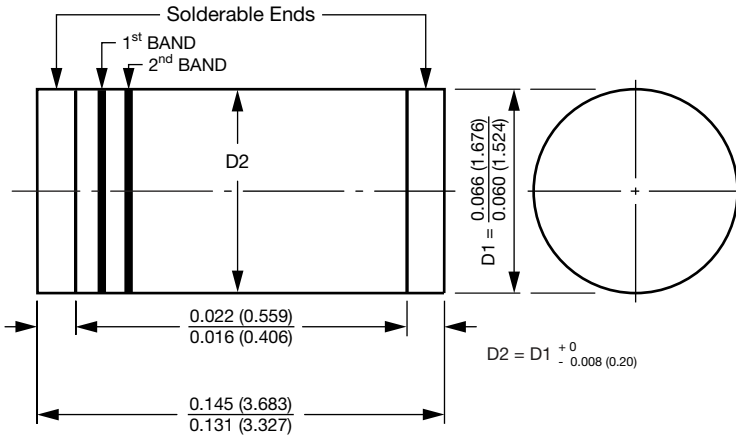


Fig. 3 - Typical Instantaneous Forward Characteristics



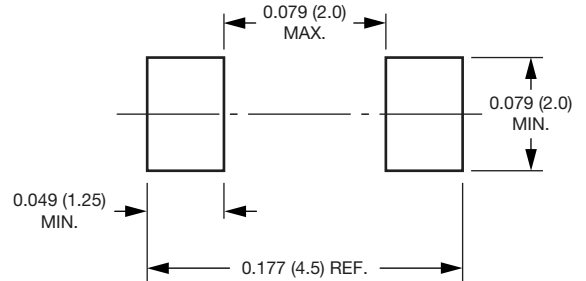
### PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

#### GL34 (DO-213AA)



1<sup>st</sup> band denotes type and polarity  
 2<sup>nd</sup> band denotes voltage type

#### Mounting Pad Layout





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