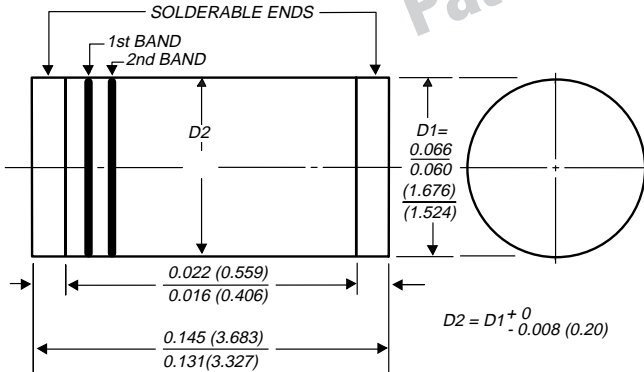




# Surface Mount Glass Passivated Junction Rectifiers

Reverse Voltage 50 to 600V  
Forward Current 0.5A

DO-213AA



Patented\*



1st band denotes type and polarity  
2nd band denotes voltage type

Dimensions in inches  
and (millimeters)

\* Glass-plastic encapsulation is covered by  
Patent No. 3,996,602 and brazed-lead assembly to Patent No. 3,930,306

## Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mount applications
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- Capable of meeting environmental standards of MIL-S-19500
- Fast switching for high efficiency
- High temperature soldering guaranteed: 450°C/5 seconds at terminals. Complete device submersible temperature of 260°C for 10 seconds in solder bath

## Mechanical Data

**Case:** JEDEC DO-213AA, molded plastic over glass body  
**Terminals:** Plated terminals, solderable per MIL-STD-750, Method 2026  
**Polarity:** Two bands indicate cathode end – 1st band denotes device type and 2nd band denotes repetitive peak reverse voltage rating  
**Mounting Position:** Any  
**Weight:** 0.0014 oz., 0.036 g

## Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Standard recovery device: first band is white	Symbol	GL34A	GL34B	GL34D	GL34G	GL34J	Unit
Polarity color bands (2nd Band)		Gray	Red	Orange	Yellow	Green	
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	V
Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	V
Maximum average forward rectified current at T <sub>T</sub> = 75°C	I <sub>F(AV)</sub>	0.5					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	10					A
Max. full load reverse current, full cycle average T <sub>A</sub> = 55°C	I <sub>R(AV)</sub>	30					μA
Maximum thermal resistance (Note 1)	R <sub>θJA</sub>	150					°C/W
(Note 2)	R <sub>θJT</sub>	70					
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175					°C

## Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 0.5A	V <sub>F</sub>	1.2		1.3	V
Maximum DC reverse current T <sub>A</sub> = 25°C at rated DC blocking voltage T <sub>A</sub> = 125°C	I <sub>R</sub>	5.0		50	μA
Typical reverse recovery time at I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1.0A, I <sub>rr</sub> = 0.25A	t <sub>rr</sub>	1.5			μs
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	4.0			pF

### Notes:

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

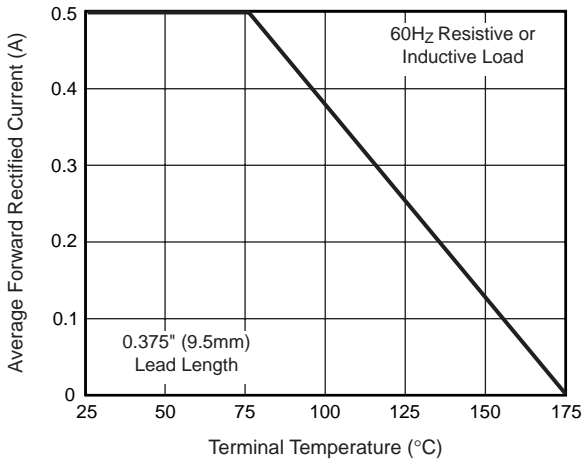
# GL34A thru GL34J

Vishay Semiconductors  
formerly General Semiconductor

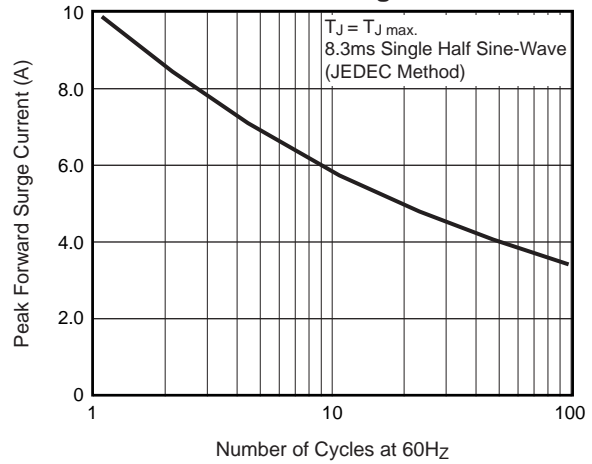


## Ratings and Characteristic Curves ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

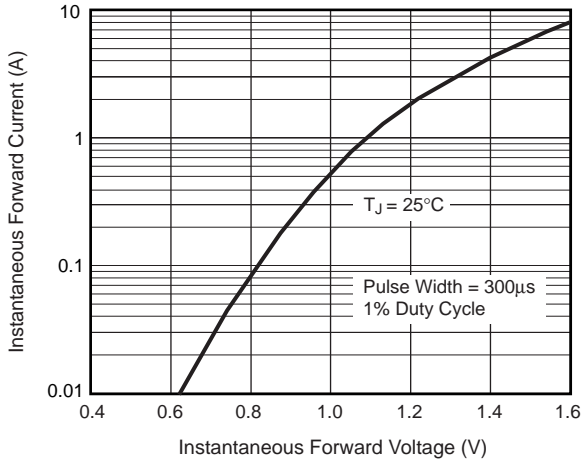
**Fig. 1 – Forward Current Derating Curve**



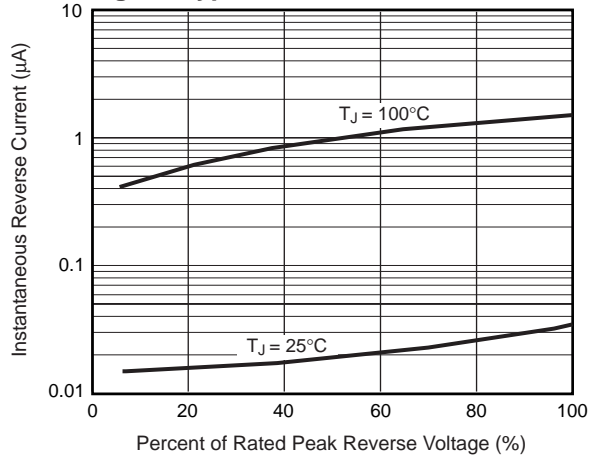
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 – Typical Reverse Characteristics**



**Fig. 5 – Typical Junction Capacitance**

