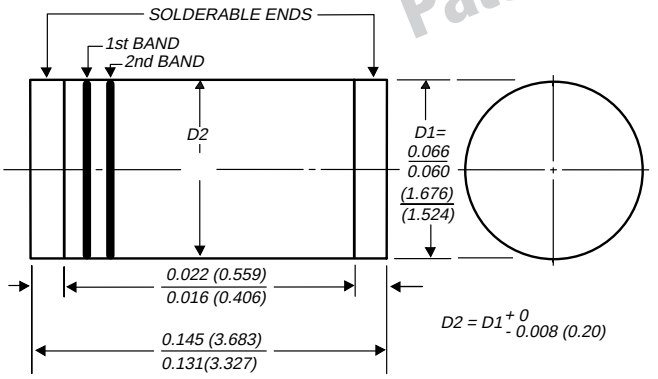
GL34A thru GL34J

Vishay Semiconductors
formerly General Semiconductor

Surface Mount Glass Passivated Junction Rectifiers

Reverse Voltage 50 to 600V
Forward Current 0.5A

DO-213AA



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

Dimensions in inches and (millimeters)

Patented*

SUPERECTIFIER®

**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_{RRM}	50	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	V
Maximum average forward rectified current at T_T = 75°C	$I_{F(AV)}$	0.5					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	10					A
Max. full load reverse current, full cycle average T_A = 55°C	$I_{R(AV)}$	30					µA
Maximum thermal resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JT}$	150 70					°C/W
Operating junction and storage temperature range	T_J, T_{STG}	–65 to +175					°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Maximum instantaneous forward voltage at 0.5A	V_F	1.2	1.3	V
Maximum DC reverse current T_A = 25°C at rated DC blocking voltage T_A = 125°C	I_R	5.0 50		µA
Typical reverse recovery time at I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A	t_{rr}	1.5		µs
Typical junction capacitance at 4.0V, 1MHz	C_J	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

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

Fig. 1 – Forward Current Derating Curve

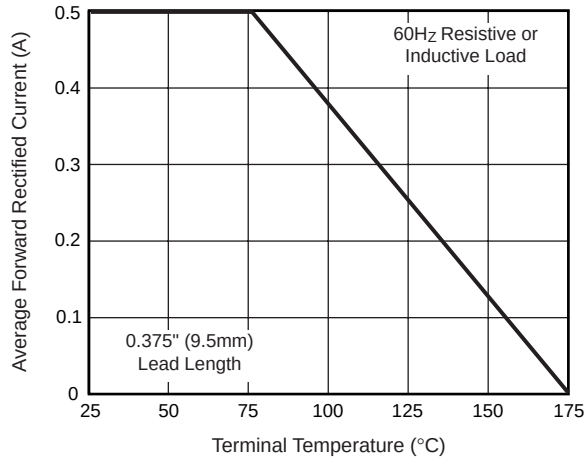


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

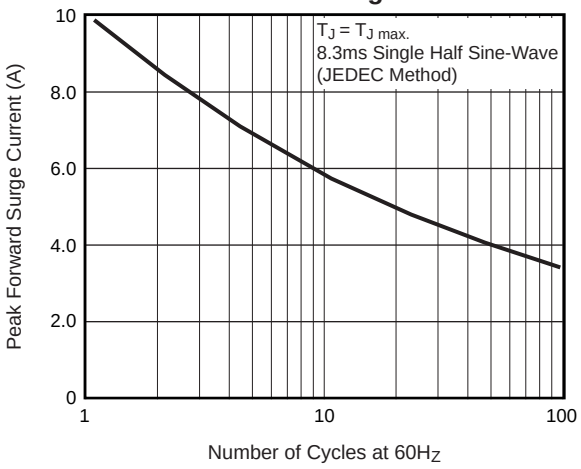


Fig. 3 – Typical Instantaneous Forward Characteristics

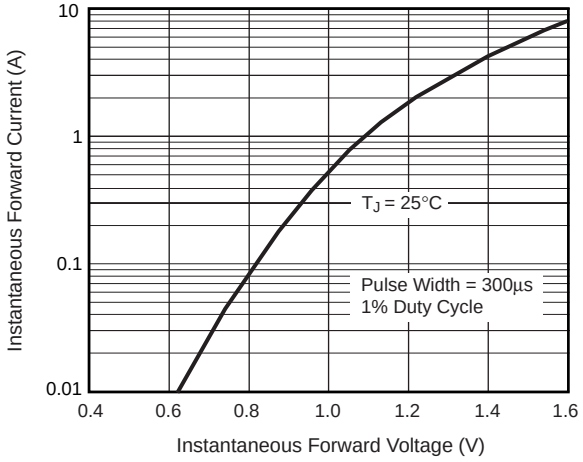


Fig. 4 – Typical Reverse Characteristics

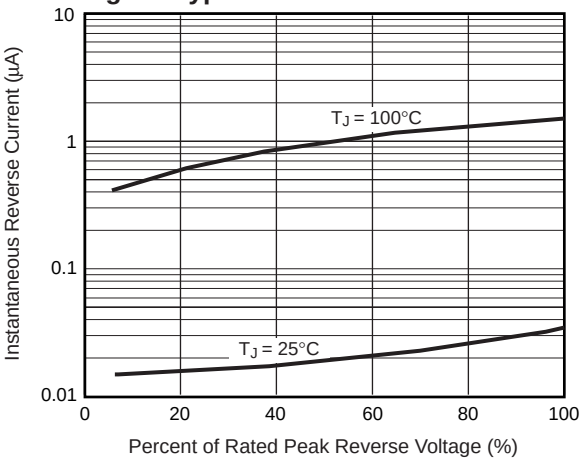


Fig. 5 – Typical Junction Capacitance