



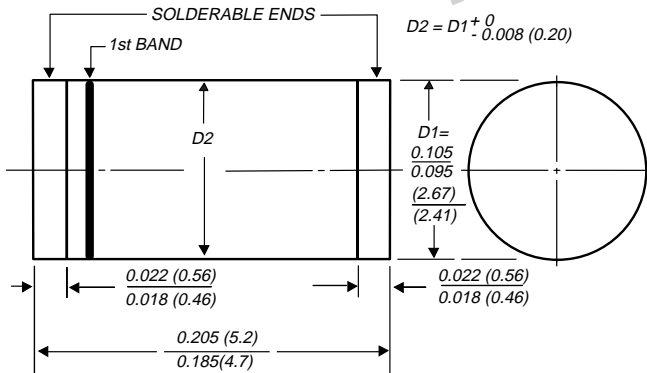
## Surface Mount Glass Passivated Junction Rectifiers

Rev. Voltage 50 to 1000V  
Forward Current 1.0A



DO-213AB

Patented\*



1st band denotes type and positive end (cathode)

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 Laboratories 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
- High temperature soldering guaranteed: 450°C/5 seconds at terminals. Complete device sub-mersible temperature of 265°C for 10 seconds in solder bath

### Mechanical Data

**Case:** JEDEC DO-213AB, 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:** 0.0046 oz., 0.116 g

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

Standard recovery time device: 1st band is White	Symbol	1N6478	1N6479	1N6480	1N6481	1N6482	1N6483	1N6484	Unit
Polarity color bands (2nd Band)		Gray	Red	Orange	Yellow	Green	Blue	Violet	
* Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
* Maximum DC blocking voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
* Maximum average forward rectified current	I <sub>F(AV)</sub>				1.0				A
* Peak forward surge current 8.3ms single half sine-wave superimposed on rated load at T <sub>A</sub> =75°C (JEDEC Method)	I <sub>FSM</sub>				30				A
* Maximum full load reverse current, full cycle average at T <sub>A</sub> = 75°C	I <sub>R(AV)</sub>				100				μA
* Maximum thermal resistance (Note 1)	R <sub>θJA</sub>				50				°C/W
(Note 2)	R <sub>θJT</sub>				20				
* 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 1.0A	T <sub>A</sub> = 25°C T <sub>A</sub> = 75°C	V <sub>F</sub>	1.1 1.0	V
* Maximum DC reverse current at rated DC blocking voltage	T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C	I <sub>R</sub>	10 200	μA
* Typical junction capacitance at 4.0V, 1MHz		C <sub>J</sub>	8.0	pF

**Notes:** (1) Thermal resistance from junction to ambient, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal  
(2) Thermal resistance from junction to terminal, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal  
\*JEDEC Registered Values

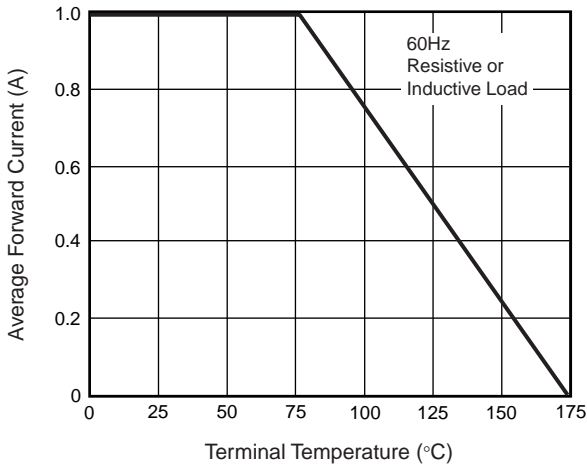
# 1N6478 thru 1N6484



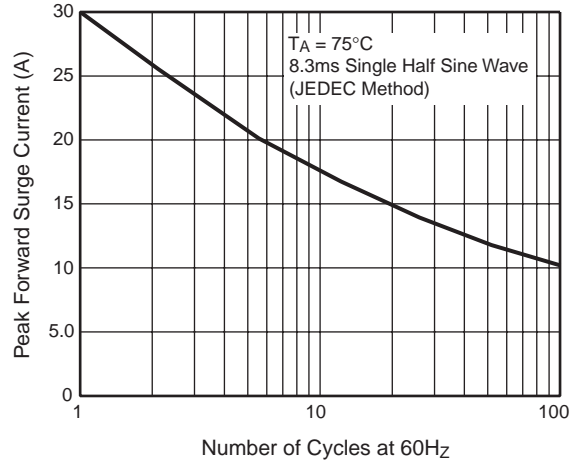
Vishay Semiconductors  
formerly General Semiconductor

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

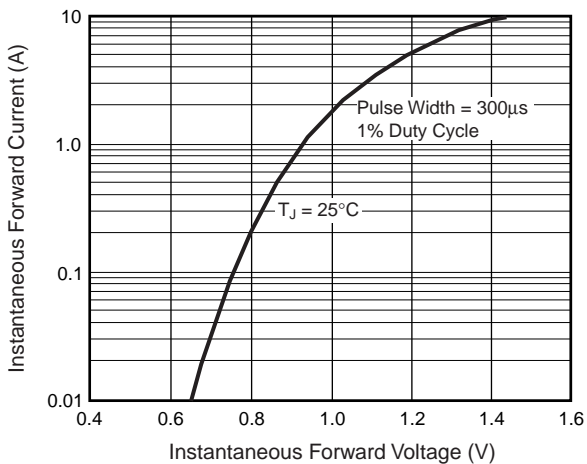
**Fig. 1 - Forward Current Derating Curve**



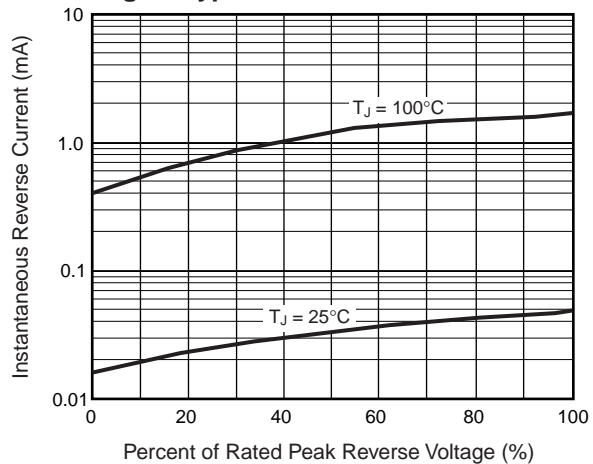
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



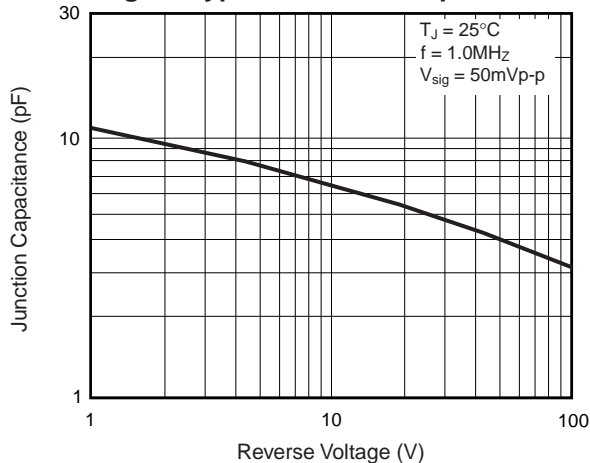
**Fig. 3 - Typical Instantaneous Forward Characteristics**



**Fig. 4 - Typical Reverse Characteristics**



**Fig. 5 - Typical Junction Capacitance**



**Fig. 6 - Typical Transient Thermal Impedance**

