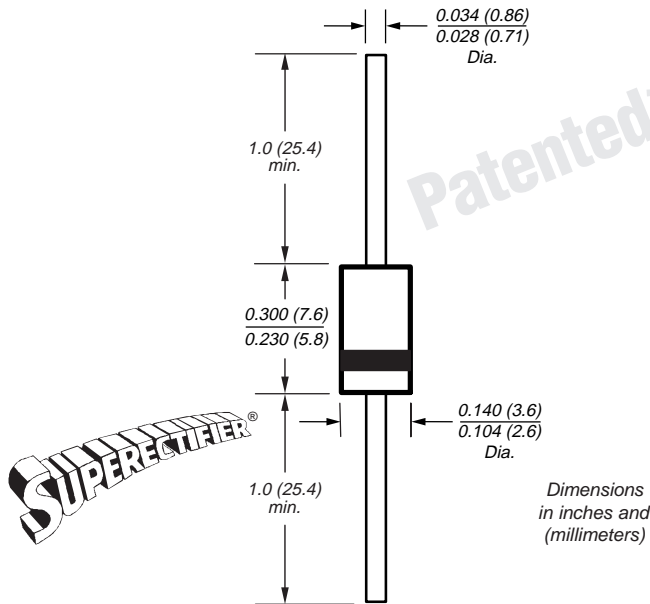


## Glass Passivated Ultrafast Rectifier

DO-204AC (DO-15)

Reverse Voltage 800 to 1000V  
Forward Current 1.0A



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

### Features

- High temperature metallurgically bonded construction
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0.
- Cavity-free glass passivated junction
- Ultrafast recovery time for high efficiency
- Low forward voltage, high current capability
- Capable of meeting environmental standards of MIL-S-19500
- Low leakage current • High surge current capability
- Specified reverse surge capability
- High temperature soldering guaranteed: 350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### Mechanical Data

**Case:** JEDEC DO-204AC, molded plastic over glass body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.015 oz., 0.4 g

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

Parameter	Symbol	BYV26DGP	BYV26EGP	Unit
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	560	700	V
Maximum DC blocking voltage	V <sub>DC</sub>	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See Fig. 1)	I <sub>F(AV)</sub>	1.0		A
Peak forward surge current 10ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30		A
Non repetitive peak reverse energy (Note 1)	E <sub>RSM</sub>	10		mj
Typical thermal resistance (Note 2,3)	R <sub>θJA</sub> R <sub>θJL</sub>	70 16		°C/W
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.

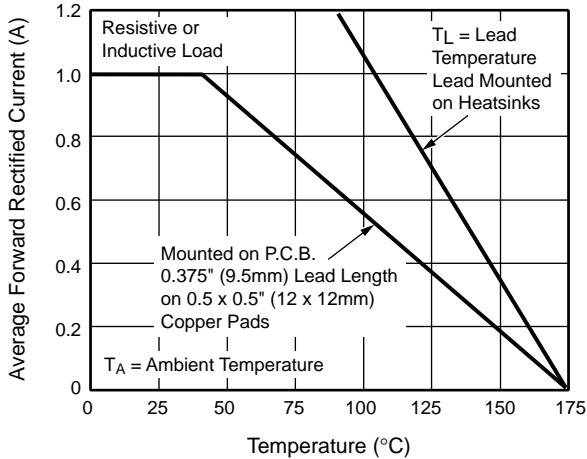
Minimum avalanche breakdown voltage at 100µA	V <sub>BR</sub>	900	1100	V
Maximum instantaneous forward voltage at 1.0A	V <sub>F</sub>	2.5	1.3	V
Maximum DC reverse current at rated DC blocking voltage	I <sub>R</sub>	5.0	150	µA
Max. reverse recovery time at I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	75		ns
Typical junction capacitance at 4.0V, 1MHz	C <sub>J</sub>	15		pF

**Notes:** (1) Peak reverse energy measured at I<sub>R</sub> = 400mA, T<sub>J</sub> = T<sub>J</sub> max. on inductive load, t = 20µs  
 (2) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads  
 (3) Thermal resistance from junction to lead at 0.375" (9.5mm) lead length with both leads attached to heatsink

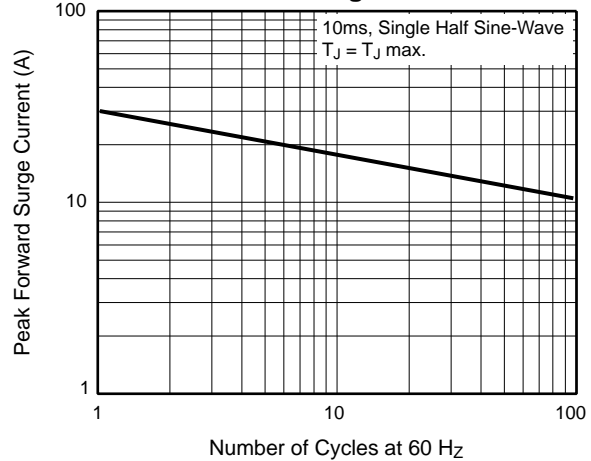
Vishay Semiconductors  
formerly General Semiconductor

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

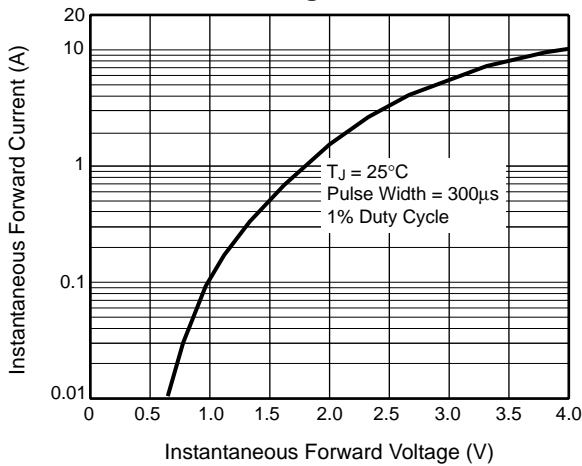
**Fig. 1 – Maximum Forward Current Derating Curve**



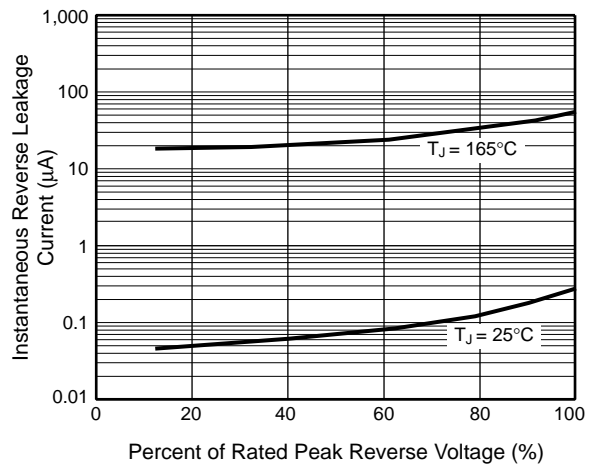
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



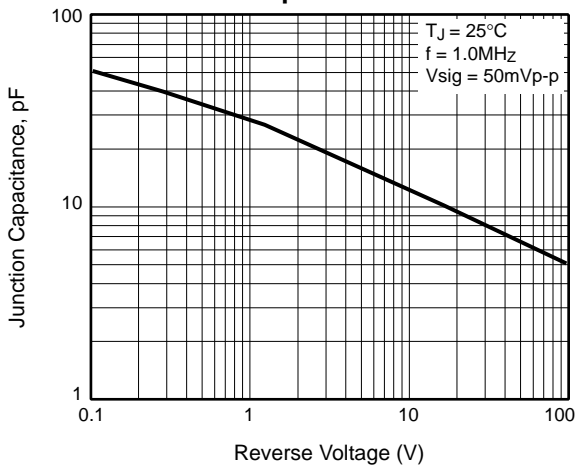
**Fig. 3 – Typical Instantaneous Forward Voltage Characteristics**



**Fig. 4 – Typical Reverse Leakage Characteristics**



**Fig. 5 – Typical Junction Capacitance**



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

