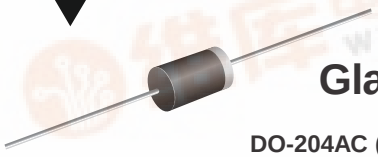
BYV26DGP and BYV26EGP

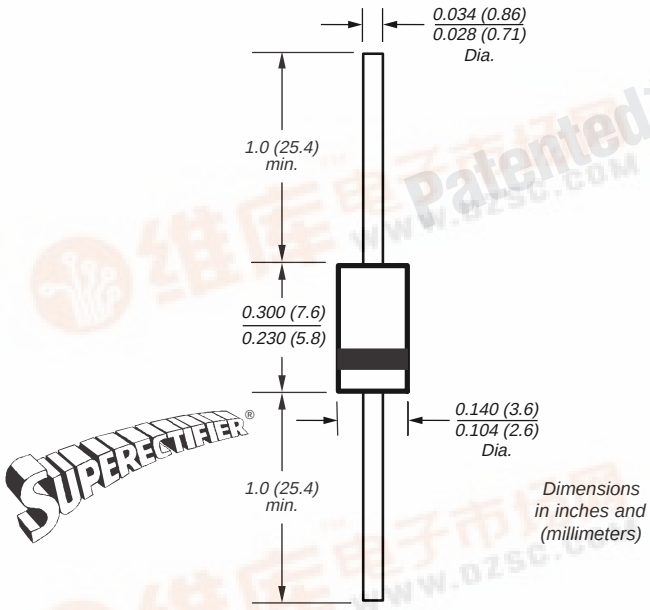
New Product

Vishay Semiconductors
formerly General Semiconductor

Glass Passivated Ultrafast Rectifier



DO-204AC (DO-15)



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

Reverse Voltage 800 to 1000V
Forward Current 1.0A

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_{RRM}	800	1000	V
Maximum RMS voltage	V_{RMS}	560	700	V
Maximum DC blocking voltage	V_{DC}	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length (See Fig. 1)	$I_{F(AV)}$	1.0		A
Peak forward surge current 10ms single half sine-wave superimposed on rated load	I_{FSM}	30		A
Non repetitive peak reverse energy (Note 1)	E_{RSM}	10		mj
Typical thermal resistance (Note 2,3)	$R_{\Theta JA}$ $R_{\Theta JL}$	70 16		°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.

Minimum avalanche breakdown voltage at 100µA		V_{BR}	900	1100	V
Maximum instantaneous forward voltage at 1.0A	T_J = 25°C T_J = 175°C	V_F	2.5 1.3		V
Maximum DC reverse current at rated DC blocking voltage	T_A = 25°C T_A = 165°C	I_R	5.0 150		µA
Max. reverse recovery time at I_F=0.5A, I_R =1.0A, I_{rr}=0.25A		t_{rr}	75		ns
Typical junction capacitance at 4.0V, 1MHz		C_J	15		pF

Notes: (1) Peak reverse energy measured at I_R = 400mA, T_J = T_J 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

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

Fig. 1 – Maximum Forward Current Derating Curve

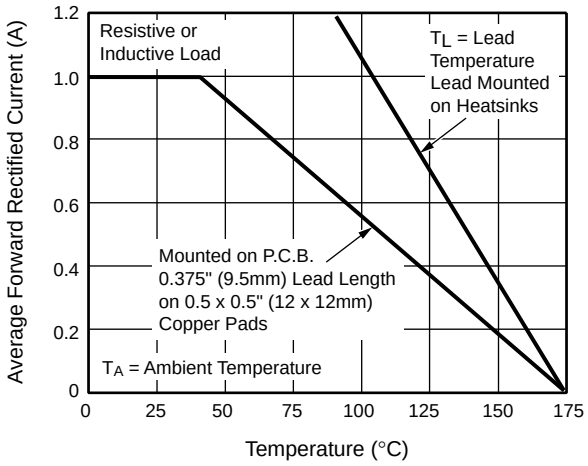


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

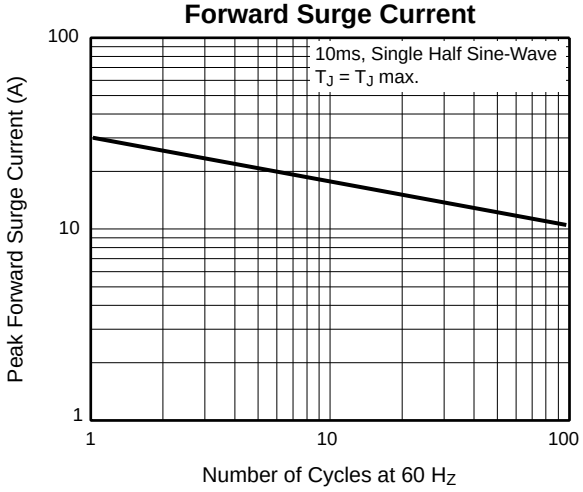


Fig. 3 – Typical Instantaneous Forward Voltage Characteristics

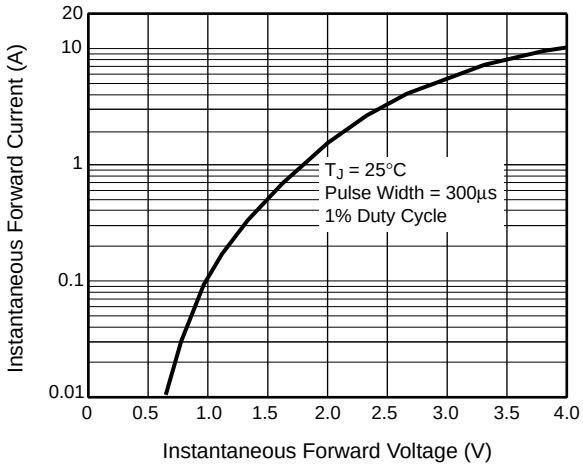


Fig. 4 – Typical Reverse Leakage Characteristics

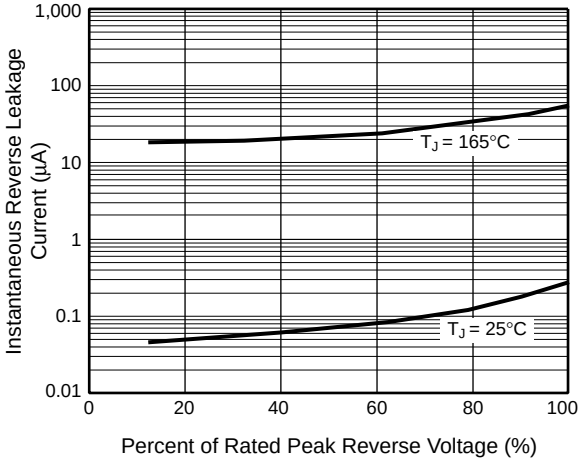


Fig. 5 – Typical Junction Capacitance

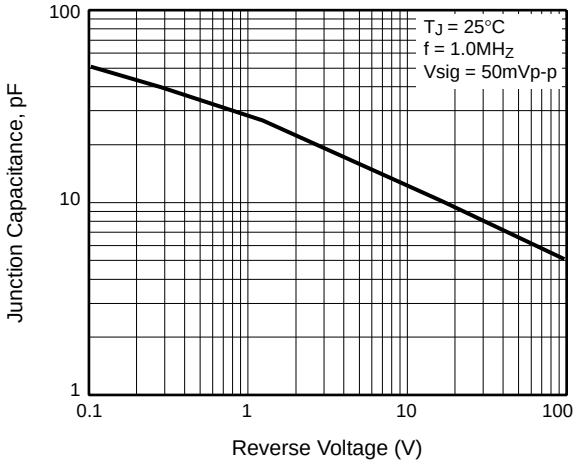


Fig. 6 – Typical Transient Thermal Impedance