

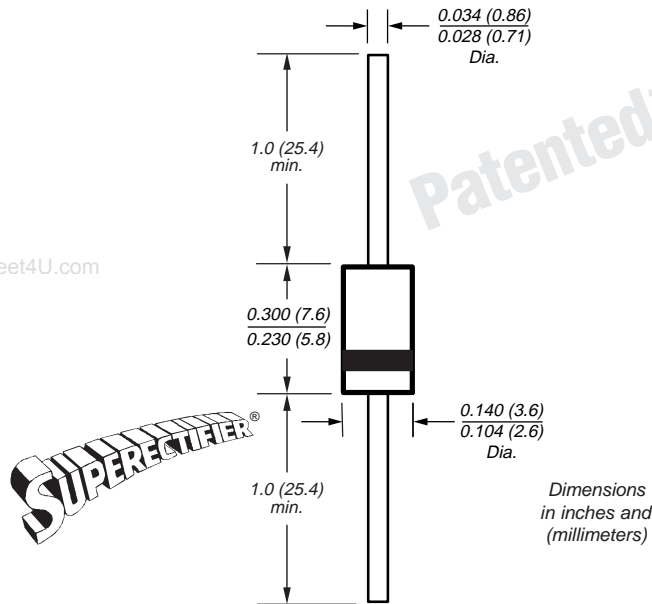


Glass Passivated Ultrafast Rectifier

DO-204AC (DO-15)

Reverse Voltage 800 to 1000V

Forward Current 1.0A

Dimensions
in inches and
(millimeters)

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

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

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	V_F	2.5 1.3		V
Maximum DC reverse current at rated DC blocking voltage	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 $I_R = 400mA$, $T_J = T_J \text{ max.}$ on inductive load, $t = 20\mu s$
 (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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Maximum Forward Current Derating Curve

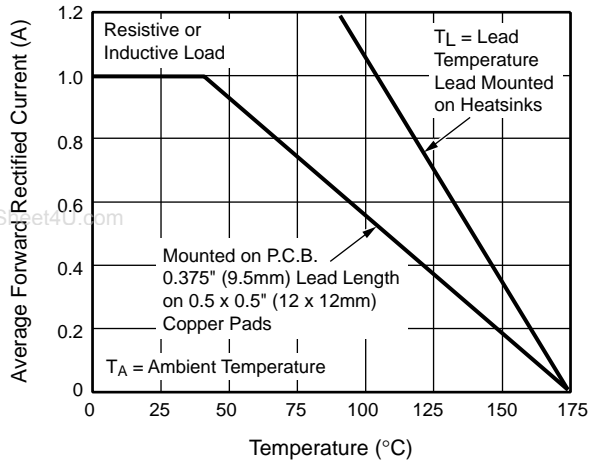


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

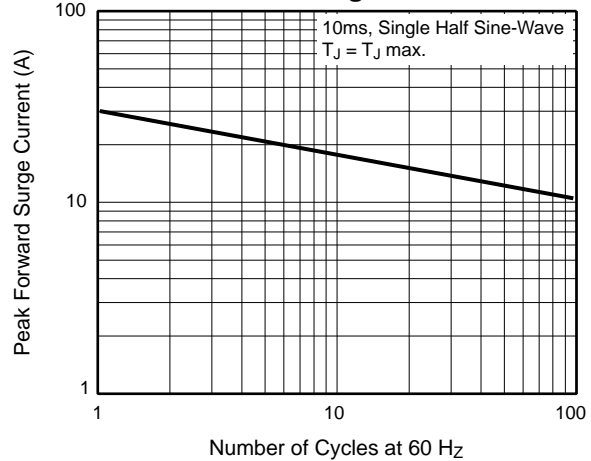


Fig. 3 – Typical Instantaneous Forward Voltage Characteristics

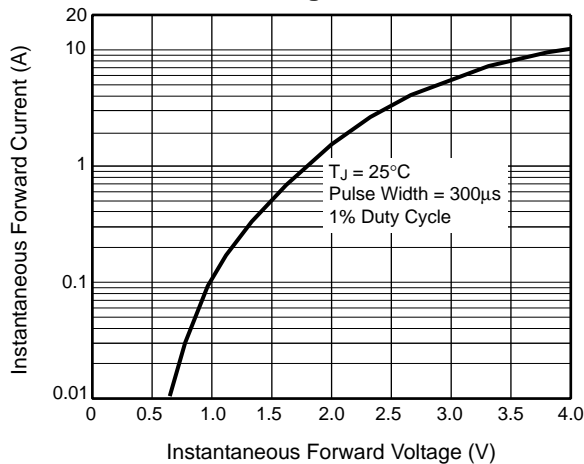


Fig. 4 – Typical Reverse Leakage Characteristics

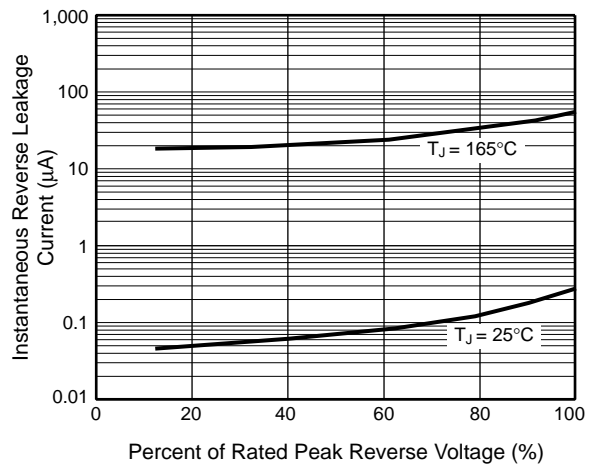


Fig. 5 – Typical Junction Capacitance

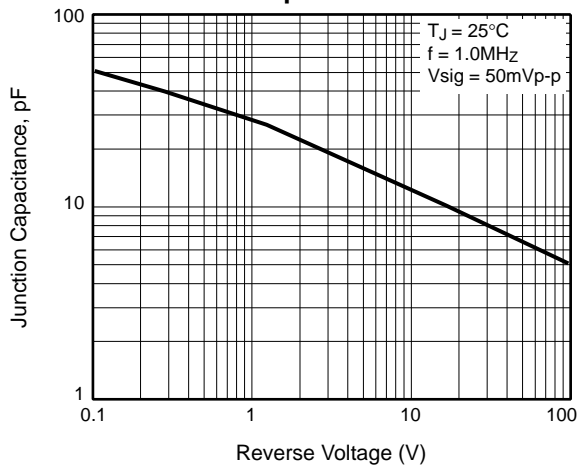


Fig. 6 – Typical Transient Thermal Impedance

