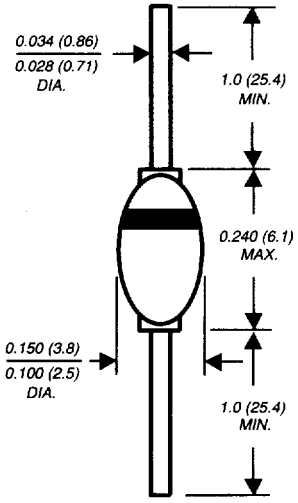
GENERAL SEMICONDUCTOR®

BYV26D and BYV26E

Glass Passivated Ultrafast Rectifier

Reverse Voltage 800 to 1000V
Forward Current 1.0A

DO-204AP



Dimensions in inches and (millimeters)

**Brazed-lead assembly is covered by Patent No. 3,930,306*

Features

- High temperature metallurgically bonded construction
- 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
- Hermetically sealed package
- 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-204AP, solid glass body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.02 ounce, 0.56 gram

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYV26D	BYV26E	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.

	SYMBOLS	BYV26D	BYV26E	UNIT
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
Maximum 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 (TA = 25°C unless otherwise noted)

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

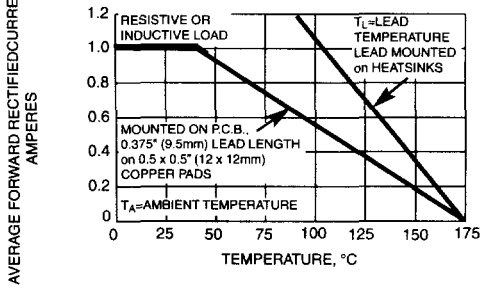


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

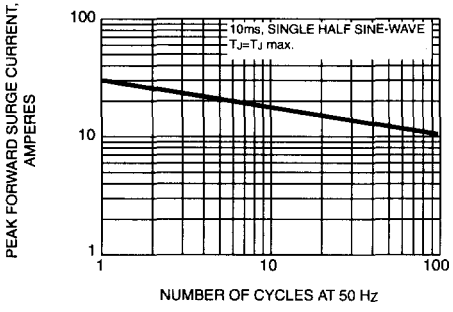


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD VOLTAGE CHARACTERISTICS

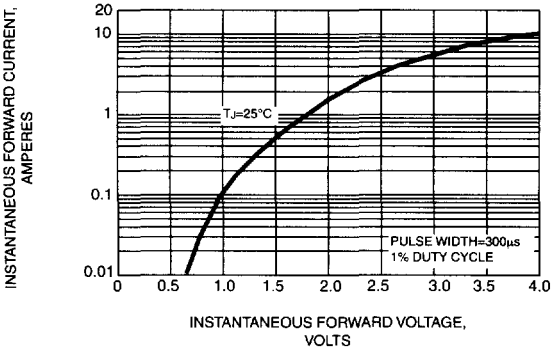


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

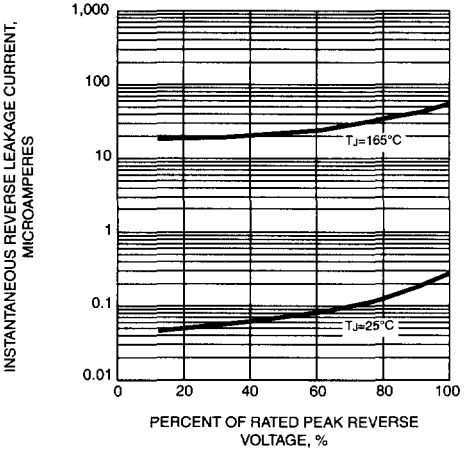


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

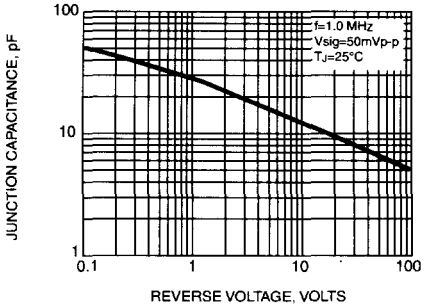


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE