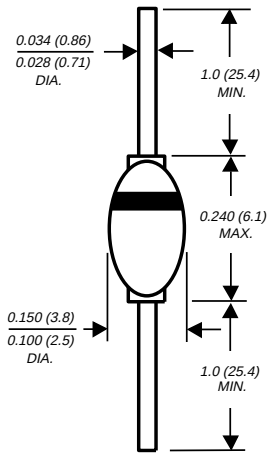
BYV26D AND BYV26E

GLASS PASSIVATED FAST EFFICIENT RECTIFIER

***Reverse Voltage** - 800 to 1000 Volts* ***Forward Current** - 1.0 Ampere*

PATENTED*

DO-204AP



Dimensions in inches and (millimeters)

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

FEATURES

- ♦ High temperature metallurgically bonded construction
- ♦ Glass passivated cavity-free junction
- ♦ Superfast recovery times for high efficiency
- ♦ Low forward voltage, high current capability
- ♦ Capable of meeting environmental standards of MIL-S-19500
- ♦ Hermetically sealed package
- ♦ Low Leakage
- ♦ High surge 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 AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYV26D	BYV26E	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	800	1000	Volts
Maximum RMS voltage	V_{RMS}	560	700	Volts
Maximum DC blocking voltage	V_{DC}	800	1000	Volts
Minimum avalanche breakdown voltage at 100µA	V_{BR}	900	1100	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG. 1)	$I_{(AV)}$	1.0		Amp
Peak forward surge current 10ms single half sine-wave superimposed on rated load	I_{FSM}	30.0		Amps
Maximum instantaneous forward voltage at 1.0A T_J=25°C T_J=175°C	V_F	2.50 1.30		Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25°C T_A=165°C	I_R	5.0 150.0		µA
Maximum reverse recovery time (NOTE 1)	t_{rr}	75.0		ns
Non repetitive peak reverse energy (NOTE 2)	E_{RSM}	10.0		mj
Typical junction capacitance (NOTE 3)	C_J	15.0		pF
Typical thermal resistance (NOTE 4) (NOTE 5)	$R_{\Theta JA}$ $R_{\Theta JL}$	70.0 16.0		°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-65 to +175		°C

NOTES:
(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
(2) Peak reverse energy measured at I_R=400mA, T_J=T_J max. on inductive load, t=20µs
(3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
(4) 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
(5) Thermal resistance from junction to lead at 0.375" (9.5mm) lead length with both leads attached to heatsink

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RATINGS AND CHARACTERISTIC CURVES BYV26D AND BYV26E

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

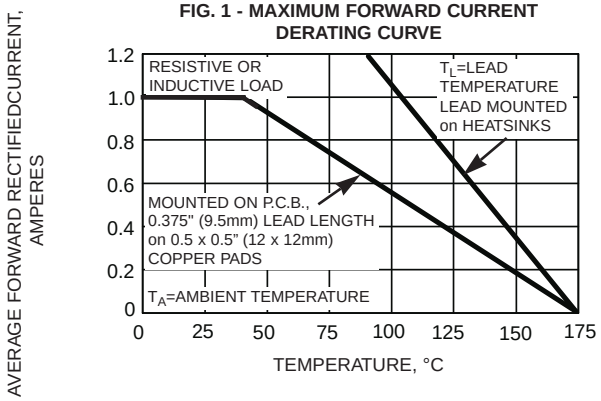


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

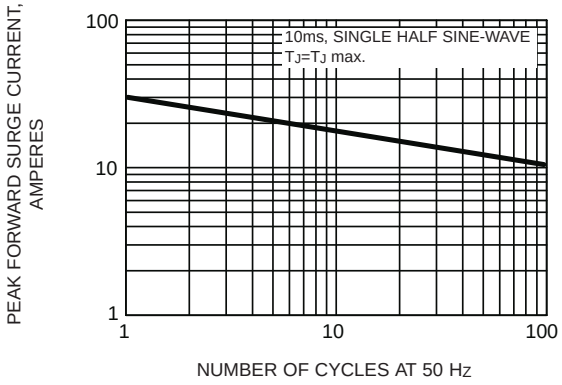


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD VOLTAGE CHARACTERISTICS

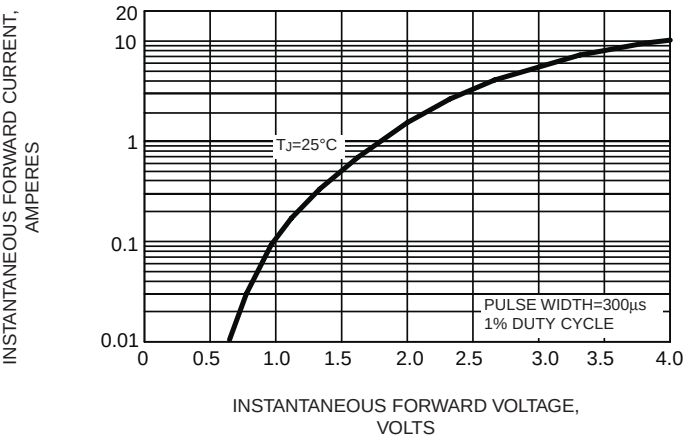


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

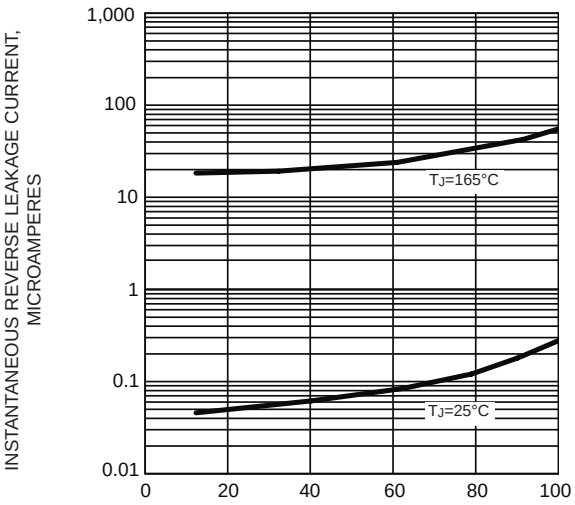


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

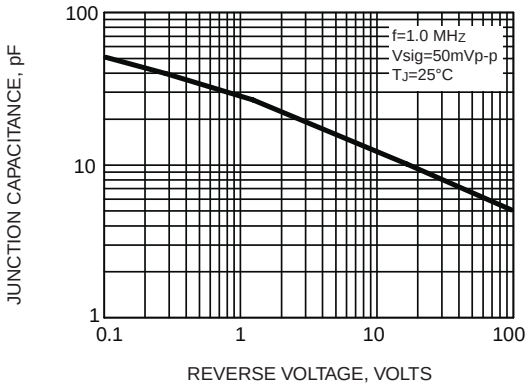
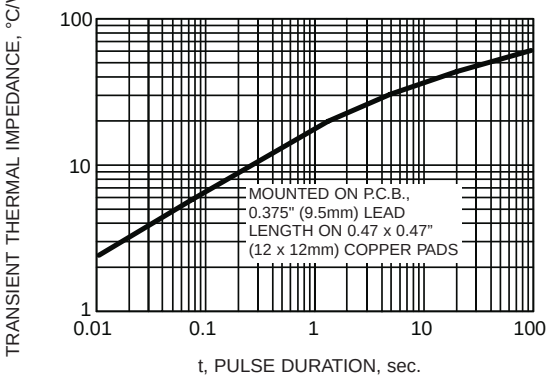


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE



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