

BYV26D AND BYV26E

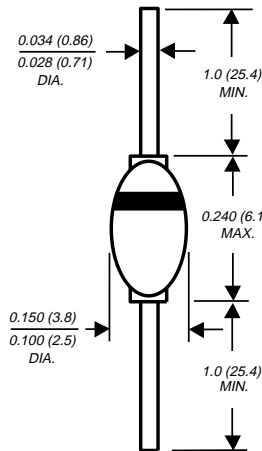
GLASS PASSIVATED FAST EFFICIENT RECTIFIER

Reverse Voltage - 800 to 1000 Volts

Forward Current - 1.0 Ampere

PATENTED*

DO-204AP

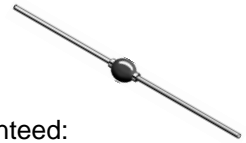


Dimensions in inches and (millimeters)

* 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 _{θJA} R _{θJL}	70.0 16.0		°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175		°C

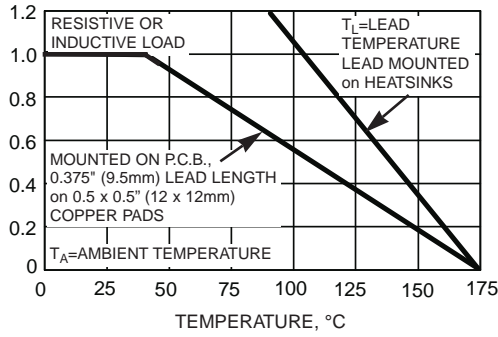
NOTES:

- (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

RATINGS AND CHARACTERISTIC CURVES BYV26D AND BYV26E

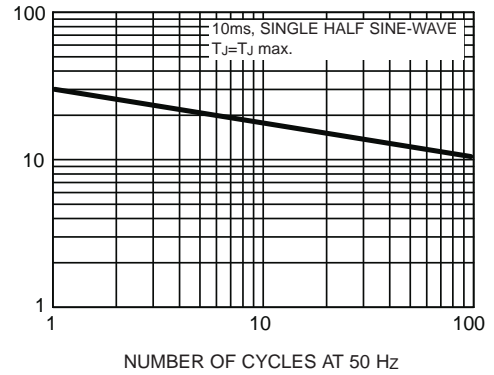
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE



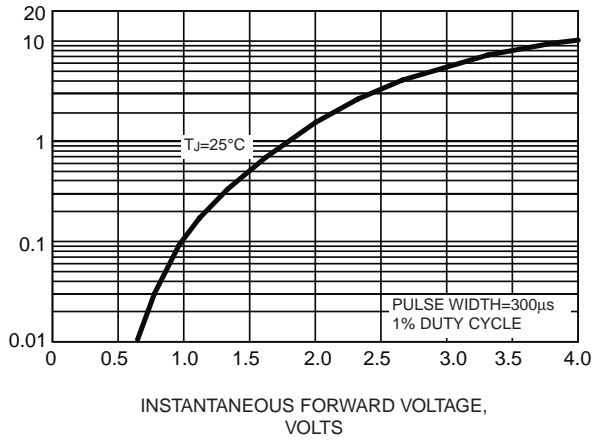
PEAK FORWARD SURGE CURRENT, AMPERES

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



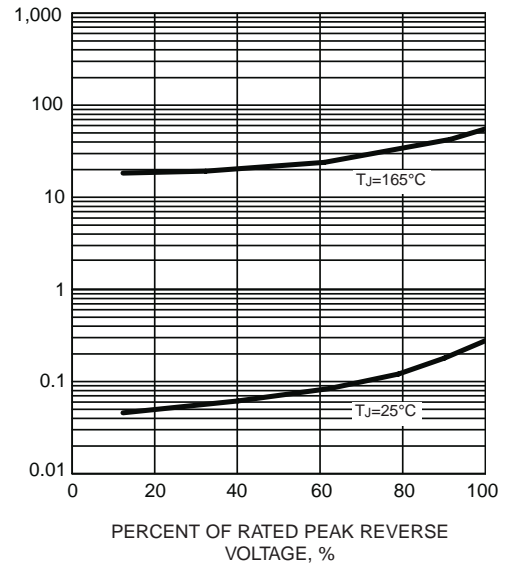
INSTANTANEOUS FORWARD CURRENT, AMPERES

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD VOLTAGE CHARACTERISTICS



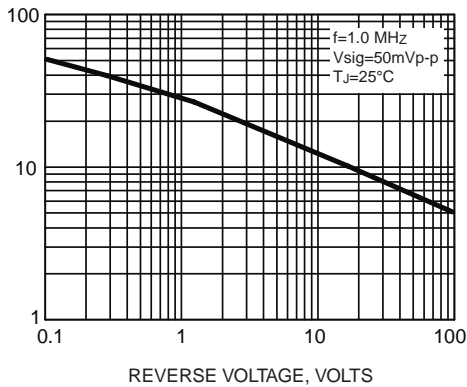
INSTANTANEOUS REVERSE LEAKAGE CURRENT, MICROAMPERES

FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5 - TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

