

BYV26D AND BYV26E

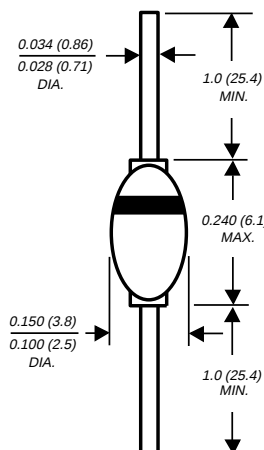
GLASS PASSIVATED FAST EFFICIENT RECTIFIER

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

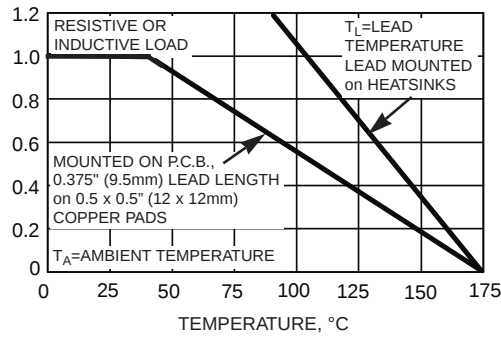
(4) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, mounted on P.C.B. with 0.5 x 0.5" (12 x 12mm) copper pads

(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

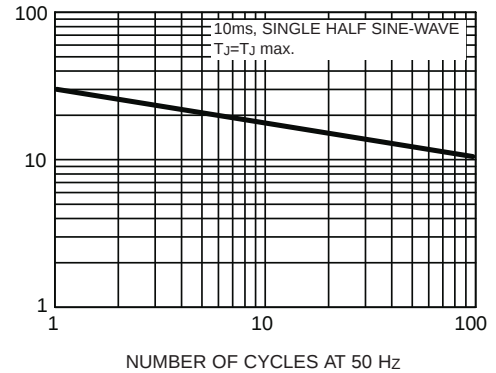
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1 - MAXIMUM FORWARD CURRENT
DERATING CURVE



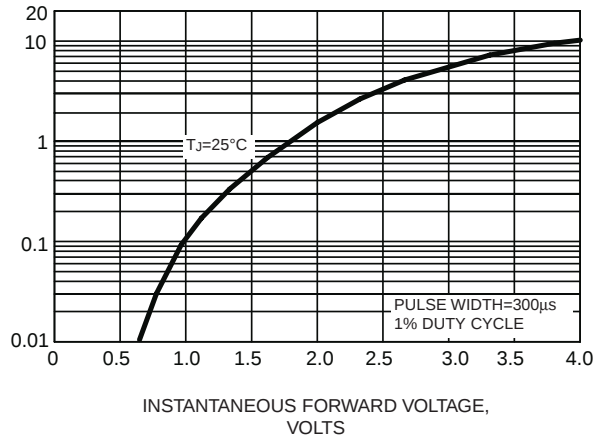
PEAK FORWARD SURGE CURRENT,
AMPERES

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



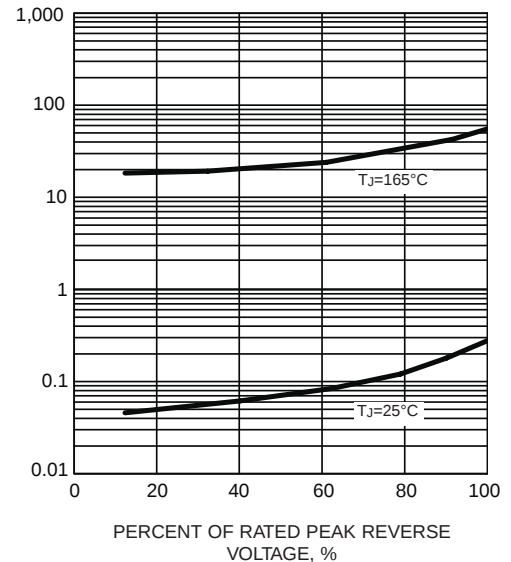
INSTANTANEOUS FORWARD CURRENT,
AMPERES

FIG. 3 - TYPICAL INSTANTANEOUS FORWARD
VOLTAGE CHARACTERISTICS



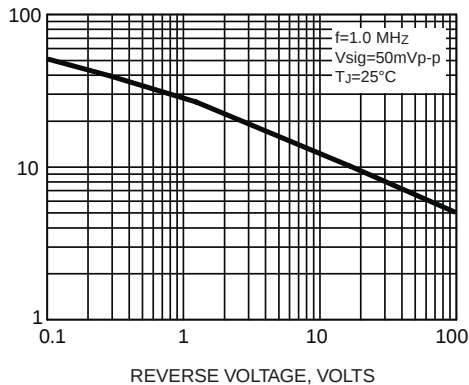
INSTANTANEOUS REVERSE LEAKAGE CURRENT,
MICROAMPERES

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

