

Silicon Diode

BYV26D

Fast Efficient Rectifier

800V / 1A

DATASHEET

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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

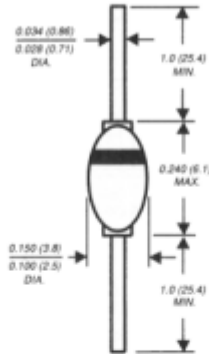
BYV26D AND BYV26E

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.

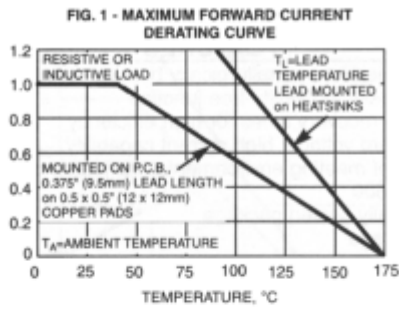
	SYMBOLS	BYV26D	BYV26E	UNIT
Maximum repetitive peak reverse voltage	VRRM	800	1000	Volts
Maximum RMS voltage	VRMS	560	700	Volts
Maximum DC blocking voltage	VDC	800	1000	Volts
Minimum avalanche breakdown voltage at 100µA	VBR	900	1100	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length (SEE FIG. 1)	I(AV)	1.0		Amp
Peak forward surge current 10ms single half sine-wave superimposed on rated load	IFSM	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)	ERSM	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:

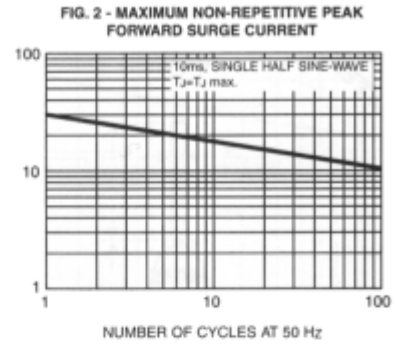
- (1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I₁=0.25A
- (2) Peak reverse energy measured at I_N=400mA, T_J=T_J max. on inductive load, t=20µs
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (4) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, 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

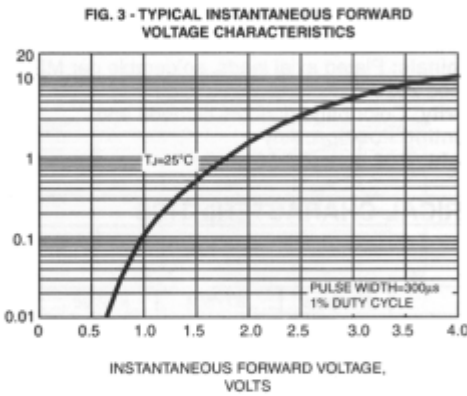
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES



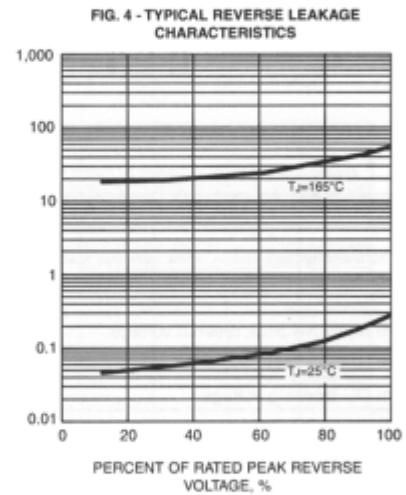
PEAK FORWARD SURGE CURRENT, AMPERES



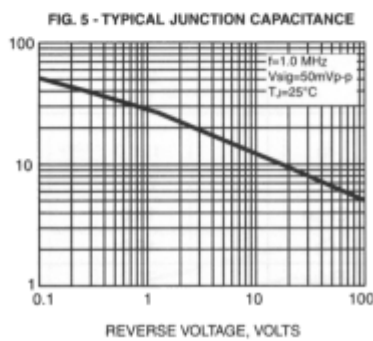
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE LEAKAGE CURRENT, MICROAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE, °C/W

