

Silicon Diode

BYV28-50

Fast Efficient Rectifier

50V / 3,5A

DATASHEET

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OEM – General Semiconductor

Source: General Semiconductor Databook 1998

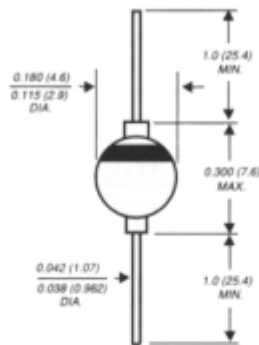
BYV28-50 THRU BYV28-200

GLASS PASSIVATED FAST EFFICIENT RECTIFIER

Reverse Voltage - 50 to 200 Volts Forward Current - 3.5 Amperes

PATENTED *

Case Style G4



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 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 capability
- ◆ High temperature soldering guaranteed: 350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



MECHANICAL DATA

Case: Solid glass body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.037 ounce, 1.04 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYV28-50	BYV28-100	BYV28-150	BYV28-200	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	Volts
Maximum RMS voltage	V _{RMS}	35	70	105	140	Volts
Maximum DC blocking voltage	V _{DC}	50	100	150	200	Volts
Minimum reverse breakdown voltage at 100µA	V _(BR)	55	110	165	220	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T _L =85°C	I _(AV)	3.5				Amps
Peak forward surge current 10ms single half sine-wave superimposed on rated load (JEDEC Method) at T _J =175°C	I _{FSM}	90.0				Amps
Maximum instantaneous forward voltage at 3.5A T _J =25°C T _J =175°C	V _F	1.1 0.89				Volts
Maximum DC reverse current at rated DC blocking voltage T _A =25°C T _A =165°C	I _R	1.0 150.0				µA
Maximum reverse recovery time (NOTE 1)	t _{rr}	30.0				ns
Typical junction capacitance (NOTE 2)	C _J	100.0				pF
Typical thermal resistance (NOTE 3, 4)	R _{θJA} R _{θJL}	55.0 20.0				°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_m=0.25A
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to lead at 0.375" (9.5mm) lead length with both leads attached to heatsinks
- (4) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length and mounted on P.C.B.

RATINGS AND CHARACTERISTIC CURVES BYV28-50 THRU BYV28-200

