

# Silicon Diode

## **BYV32-150**

Fast Efficient Rectifier

150V / 18A

# DATASHEET

from

[www.web-bcs.com](http://www.web-bcs.com)

OEM – General Semiconductor

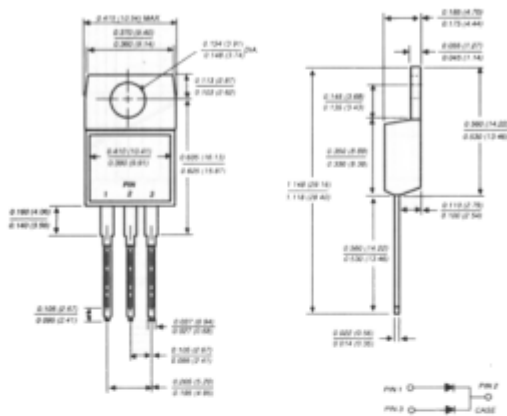
Source: General Semiconductor Databook 1998

# BYV32-50 THRU BYV32-200

## FAST EFFICIENT PLASTIC RECTIFIER

Reverse Voltage - 50 to 150 Volts Forward Current - 18.0 Amperes

### TO-220AB



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Dual rectifier construction, positive centertap
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junctions
- ◆ Low power loss
- ◆ Low forward voltage, high current capability
- ◆ High surge capability
- ◆ Superfast recovery time for high efficiency
- ◆ High temperature soldering guaranteed: 250°C, 0.16" (4.06mm) from case for 10 seconds



### MECHANICAL DATA

**Case:** JEDEC TO-220AB molded plastic body over passivated chips

**Terminals:** Plated leads solderable per MIL-STD-750, Method 2026

**Polarity:** As marked

**Mounting Position:** Any

**Weight:** 0.08 ounce, 2.24 grams

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYV32-50	BYV32-100	BYV32-150	BYV32-200	UNITS
Maximum repetitive peak reverse voltage	VRRM	50	100	150	200	Volts
Maximum RMS voltage	VRMS	35	70	105	140	Volts
Maximum DC blocking voltage	VDC	50	100	150	200	Volts
Maximum average forward rectified current at T <sub>C</sub> =120°C	I(AV)	18.0				Amps
Peak forward surge current 10ms single half sine-wave superimposed at at T <sub>J</sub> =150°C	IFSM	150.0				Amps
Maximum instantaneous forward voltage per leg at: I <sub>F</sub> =20A I <sub>F</sub> =5.0A, T <sub>J</sub> =100°C	V <sub>F</sub>	1.15 0.85				-Volts
Maximum DC reverse current T <sub>C</sub> =25°C at rated DC blocking voltage T <sub>C</sub> =100°C	I <sub>R</sub>	10.0 600.0				μA
Maximum reverse recovery time per leg (NOTE 1)	t <sub>rr</sub>	25.0				ns
Typical junction capacitance per leg (NOTE 2)	C <sub>J</sub>	45.0				pF
Maximum thermal resistance per leg (NOTE 3)	R <sub>θJA</sub> R <sub>θJC</sub>	20.0 3.0				°C/W
Operating and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150				°C

**NOTES:**

- (1) Reverse recovery test conditions: I<sub>R</sub>=1A V<sub>R</sub>=30V di/dt=100A/μs, I<sub>rr</sub>=10% I<sub>SM</sub>
- (2) Measured at 1.0 Mhz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient and from junction to case per leg mounted on heatsink

**RATINGS AND CHARACTERISTIC CURVES BYV32-50 THRU BYV32-200**

