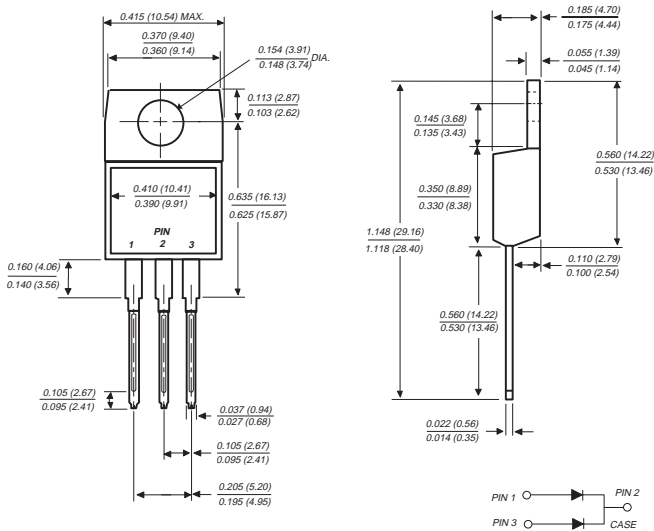


# BYV32-50 THRU BYV32-200

## 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.

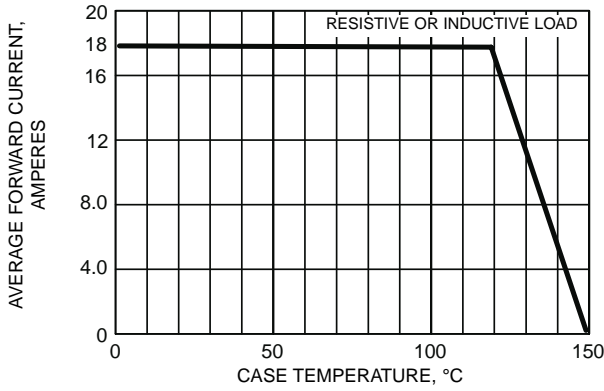
	SYMBOLS	BYV32-50	BYV32-100	BYV32-150	BYV32-200	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	Volts
Maximum average forward rectified current at $T_C=120^\circ\text{C}$	$I_{(AV)}$	18.0				Amps
Peak forward surge current 10ms single half sine-wave superimposed at at $T_J=150^\circ\text{C}$	$I_{FSM}$	150.0				Amps
Maximum instantaneous forward voltage per leg at: $I_F=20\text{A}$ $I_F=5.0\text{A}, T_J=100^\circ\text{C}$	$V_F$	1.15 0.85				Volts
Maximum DC reverse current at rated DC blocking voltage $T_C=25^\circ\text{C}$ $T_C=100^\circ\text{C}$	$I_R$	10.0 600.0				$\mu\text{A}$
Maximum reverse recovery time per leg (NOTE 1)	$t_{rr}$	25.0				ns
Typical junction capacitance per leg (NOTE 2)	$C_J$	45.0				pF
Maximum thermal resistance per leg (NOTE 3)	$R_{\theta JA}$ $R_{\theta JC}$	20.0 3.0				$^\circ\text{C/W}$
Operating and storage temperature range	$T_J, T_{STG}$	-65 to +150				$^\circ\text{C}$

#### NOTES:

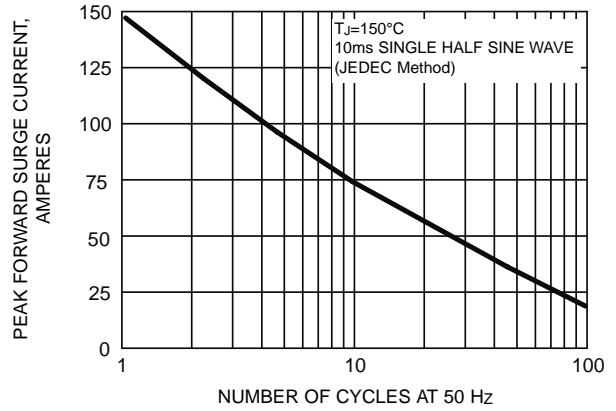
- (1) Reverse recovery test conditions:  $I_F=1\text{A}$   $V_R=30\text{V}$ ,  $di/dt=100\text{A}/\mu\text{s}$ ,  $I_{rr}=10\%$   $I_{RM}$
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient and from junction to case per leg mounted on heatsink

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

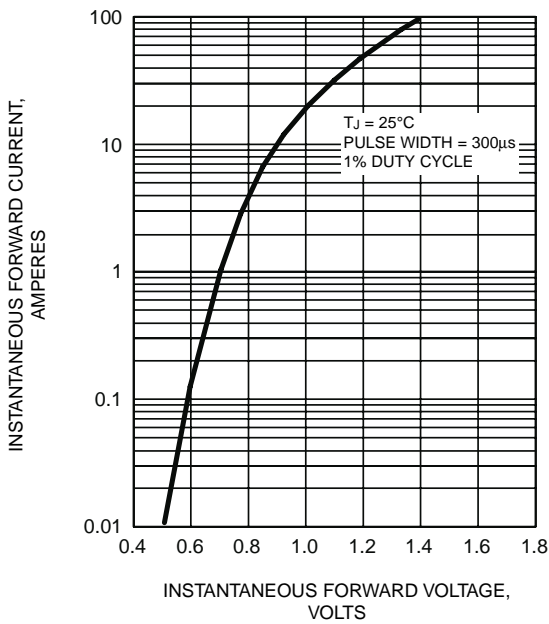
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



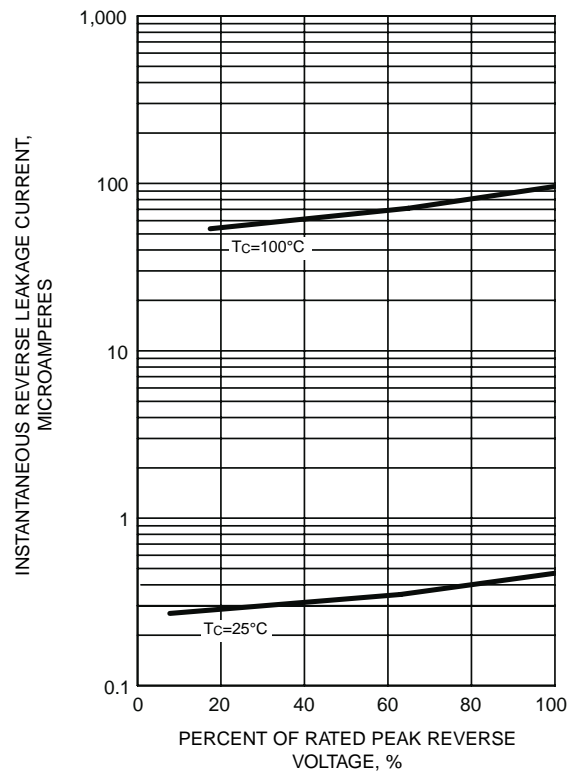
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG**



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE PER LEG**

