

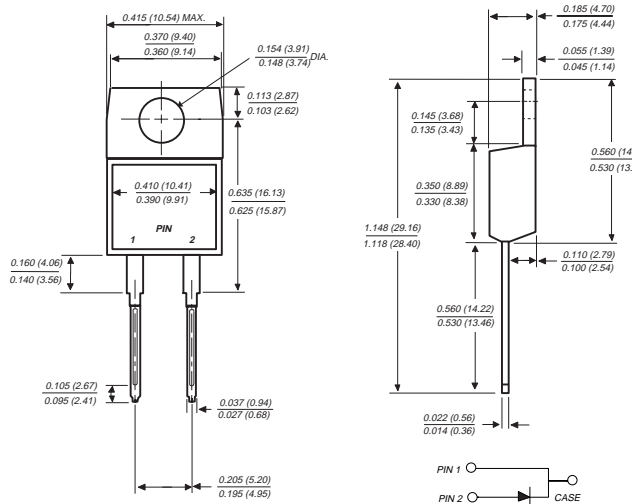
BYW29-50 THRU BYW29-200

FAST EFFICIENT PLASTIC RECTIFIER

Reverse Voltage - 50 to 200 Volts

Forward Current - 8.0 Amperes

TO-220AC



FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated chip junction
- ◆ Low power loss
- ◆ Low leakage current
- ◆ High surge current 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-220AC molded plastic body over passivated chip

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

Polarity: As marked

Mounting Position: Any

Weight: 0.064 ounce, 1.81 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYW29-50	BYW29-100	BYW29-150	BYW29-200	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 $T_C=125^\circ\text{C}$	$I_{(AV)}$	8.0				Amps
Peak forward surge current 10ms single half sine-wave superimposed at $T_J=150^\circ\text{C}$	I_{FSM}	100.0				Amps
Maximum instantaneous forward voltage at: $I_F=20\text{A}$, $T_J=25^\circ\text{C}$ $I_F=8\text{A}$, $T_J=150^\circ\text{C}$	V_F	1.3 0.8				Volts
Maximum DC reverse current at rated DC blocking voltage $T_C=25^\circ\text{C}$ $T_C=100^\circ\text{C}$	I_R	10.0 500.0				μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	25.0				ns
Typical junction capacitance (NOTE 2)	C_J	45.0				pF
Maximum thermal resistance (NOTE 3) (NOTE 4)	$R_{\theta JA}$ $R_{\theta JC}$	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} for measurement of t_{rr}
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (3) Thermal resistance from junction to ambient in free air; no heatsink
- (4) Thermal resistance from junction to case mounted on heatsink

RATINGS AND CHARACTERISTIC CURVES BYW29-50 THRU BYW29-200

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

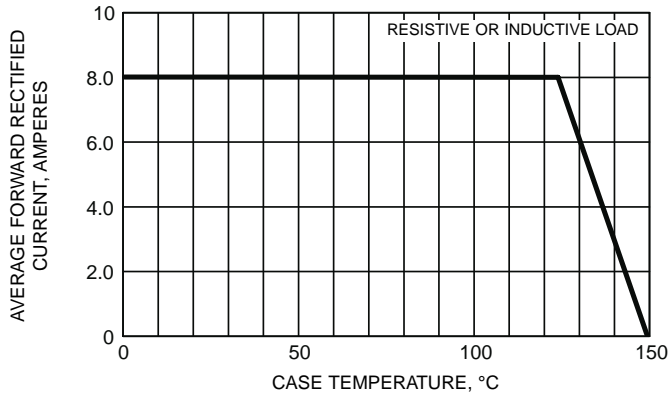


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

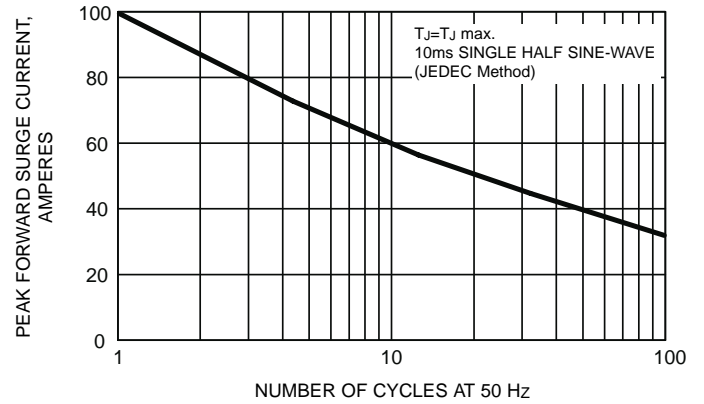


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

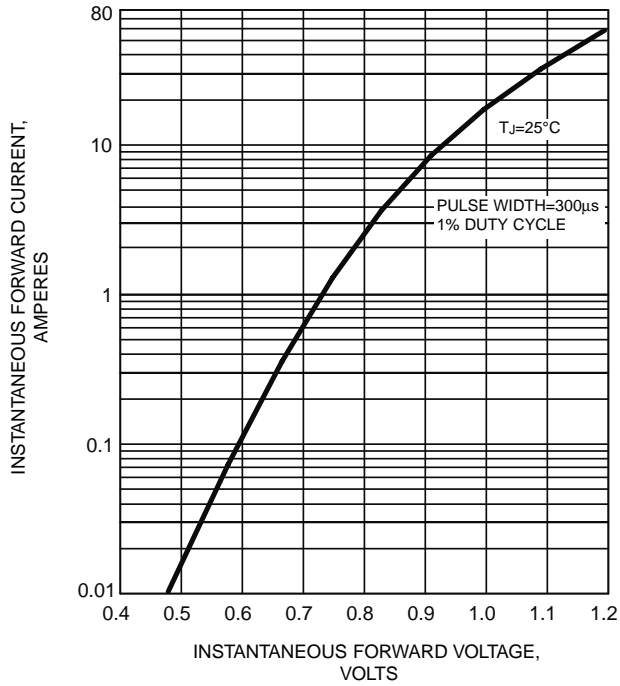


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

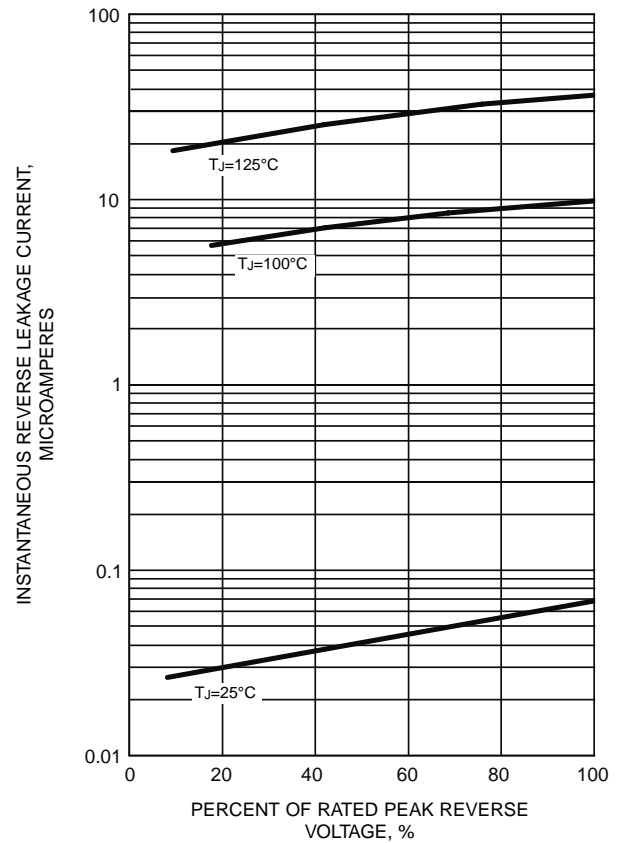


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

