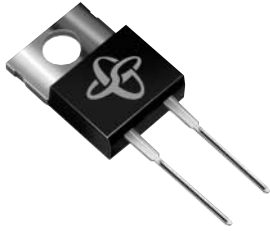


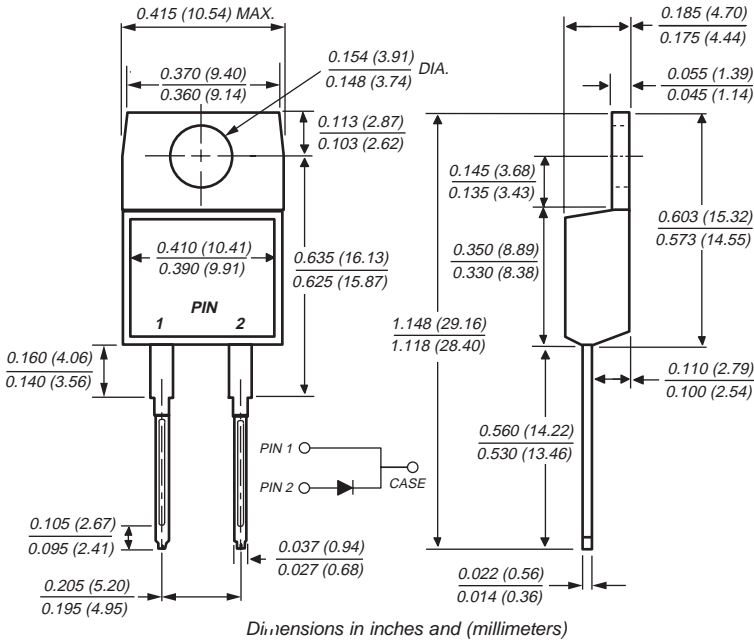
Ultrafast Plastic Rectifier

Reverse Voltage 50 to 200V

Forward Current 8.0A



TO-220AC



Features

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

Terminals: Lead solderable per MIL-STD-750, Method 2026

Polarity: As marked

Mounting Position: Any

Mounting Torque: 10 in.-lbs. max.

Weight: 0.064 ounce, 1.81 grams

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	BYW29-50	BYW29-100	BYW29-150	BYW29-200	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	V
Maximum average forward rectified current at $T_C = 125^\circ\text{C}$	$I_{F(AV)}$	8.0				A
Peak forward surge current 10ms single half sine-wave superimposed at $T_C = 150^\circ\text{C}$	I_{FSM}	100				A
Maximum thermal resistance (Note 1)	$R_{\theta JA}$	15				°C/W
(Note 2)	$R_{\theta JC}$	2.2				
Operating and storage temperature range	T_J, T_{STG}	-65 to +150				°C

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	BYW29-50	BYW29-100	BYW29-150	BYW29-200	Unit
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				V
Maximum DC reverse current at rated DC blocking voltage $T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$	I_R	10 500				μA
Maximum reverse recovery time at $I_F = 1\text{A}, V_R = 30\text{V}, di/dt = 100\text{A}/\mu\text{s}, I_{rr} = 10\% I_{RM}$	t_{rr}	25				ns
Typical junction capacitance at 4.0V, 1MHz	C_J	45				pF

Notes: (1) Thermal resistance from junction to ambient in free air, no heatsink
(2) Thermal resistance from junction to case and ambient mounted on heatsink

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

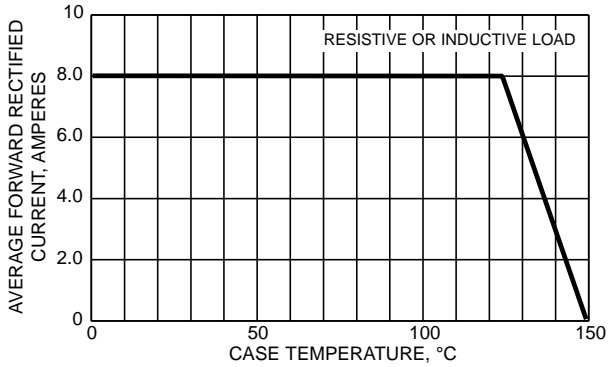


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

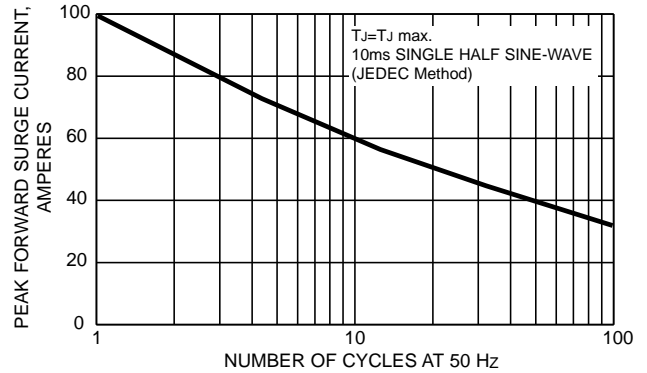


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

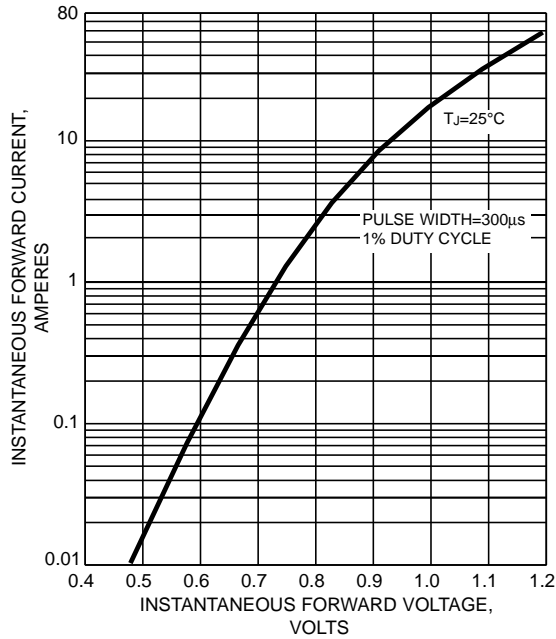


FIG. 4 - TYPICAL REVERSE LEAKAGE CHARACTERISTICS

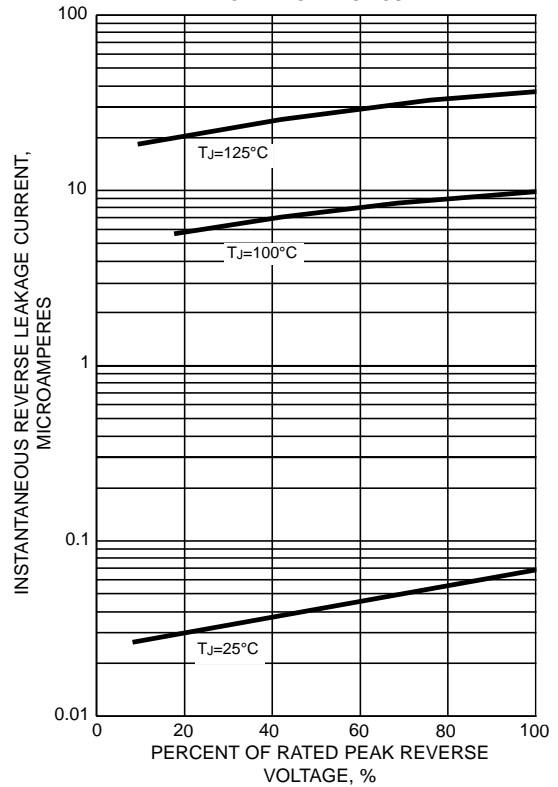


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

