

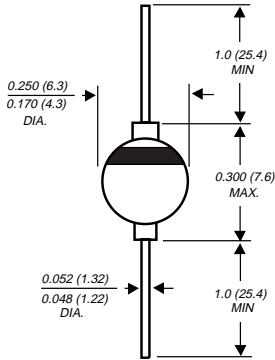
BY228 SERIES

CLAMPER / DAMPER GLASS PASSIVATED RECTIFIER

Reverse Voltage - 1500 Volts Forward Current - 2.5 Amperes

PATENTED*

Case Style G3



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
- ♦ 2.5 ampere operation at $T_A=50^\circ\text{C}$ with no thermal runaway
- ♦ Typical I_R less than $0.1\mu\text{A}$
- ♦ Hermetically sealed package
- ♦ Capable of meeting environmental standards of MIL-S-19500
- ♦ High temperature soldering guaranteed: $350^\circ\text{C}/10$ seconds, $0.375''$ (9.5mm) lead length, 5 lbs. (2.3kg) tension



MECHANICAL DATA

Case: Solid glass body

Terminals: Solder plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.04 ounce, 1.1 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BY228	UNITS
Maximum non repetitive peak reverse voltage	V_{RSM}	1650	Volts
Maximum repetitive peak reverse voltage	V_{RRM}	1500	Volts
Maximum RMS voltage	V_{RMS}	1050	Volts
Maximum DC blocking voltage	V_{DC}	1500	Volts
Maximum average forward rectified current $0.375''$ (9.5mm) lead length at $T_A=50^\circ\text{C}$	$I_{(AV)}$	2.5	Amps
Peak forward surge current 10ms single half sine-wave superimposed on rated load	I_{FSM}	50.0	Amps
Maximum instantaneous forward voltage at 2.5A	V_F	1.6	Volts
Working peak forward current at $T_A=75^\circ\text{C}$	I_{FWM}	5.0	Amps
Peak repetitive forward surge current at $T_A=75^\circ\text{C}$	I_{FRM}	10.0	Amps
Maximum peak reverse current at rated peak reverse voltage $T_A=25^\circ\text{C}$ $T_J=140^\circ\text{C}$	I_R	5.0 200	μA
Maximum reverse recovery time (NOTE 1)	t_{rr}	20.0	μs
Maximum forward recovery time (NOTE 2)	t_{fr}	1.0	μs
Typical junction capacitance (NOTE 2)	C_J	40.0	pF
Typical thermal resistance (NOTE 4)	$R_{\theta JA}$	20.0	$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-65 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +200	$^\circ\text{C}$

NOTES:

- (1) Measured with $I_F=1.0\text{A}$, $I_R=50\text{mA}$, $di/dt=50\text{mA}/\mu\text{s}$
- (2) Measured with $I_F=5.0\text{A}$ with $t_r=0.1\mu\text{s}$
- (3) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (4) Thermal resistance from junction to ambient at $0.375''$ (9.5mm) lead length, P.C.B. mounted

RATINGS AND CHARACTERISTIC CURVES BY228 SERIES

