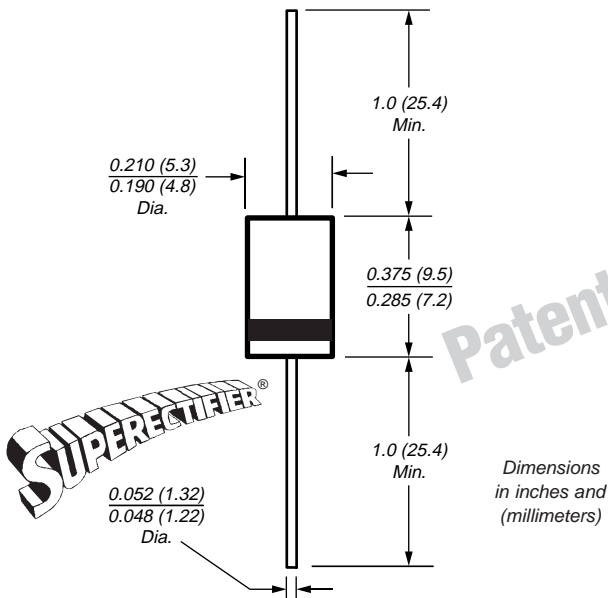


Clamper / Damper Glass Passivated Rectifier

Reverse Voltage 1500V
Forward Current 2.5A

DO-201AD


*Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 and brazed-lead assembly by Patent No. 3,930,306

Features

- Plastic Package has UL Flammability Classification 94V-0
- High temperature metallurgically bonded construction
- Cavity-free glass passivated 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: JEDEC DO-201AD, molded plastic over glass body

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

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.04 oz., 1.12 g

Packaging codes/options:

- 1/Bulk - 1.5K per container, 15K per box
- 4/1.4K per 13" reel, 5.6K per box
- 23/1K per ammo mag., 9K per box

Maximum Ratings & Thermal Characteristics

 Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	BY228GP	Unit
Maximum non repetitive peak reverse voltage	V_{RSM}	1650	V
Maximum repetitive peak reverse voltage	V_{RRM}	1500	V
Maximum RMS voltage	V_{RMS}	1050	V
Maximum DC blocking voltage	V_{DC}	1500	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 50^\circ\text{C}$	$I_{F(AV)}$	2.5	A
Peak forward surge current 10ms single half sine-wave superimposed on rated load	I_{FSM}	50	A
Working peak forward current at $T_A = 75^\circ\text{C}$	I_{FWM}	5.0	A
Peak repetitive forward surge current at $T_A = 75^\circ\text{C}$	I_{FRM}	10	A
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	20	$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-65 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +200	$^\circ\text{C}$

Electrical Characteristics

 Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	BY228GP	Unit
Maximum instantaneous forward voltage at 2.5A	V_F	1.6	V
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 at $I_F = 1.0\text{A}$, $I_R = 50\text{mA}$, $di/dt = 50\text{mA}/\mu\text{s}$	t_{rr}	20	μs
Maximum reverse recovery time at $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{TR} = 0.25\text{A}$ typical maximum	t_{rr}	0.5 2.0	μs
Maximum forward recovery time at $I_F = 5.0\text{A}$ with $t_r = 0.1\mu\text{s}$	t_{fr}	1.0	μs
Typical junction capacitance at 4.0V, 1MHz	C_J	40	pF

Notes: (1) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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

Fig. 1 - Forward Current Derating Curve

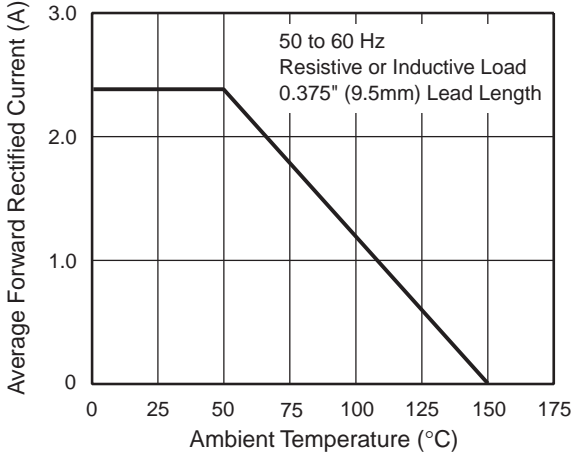


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

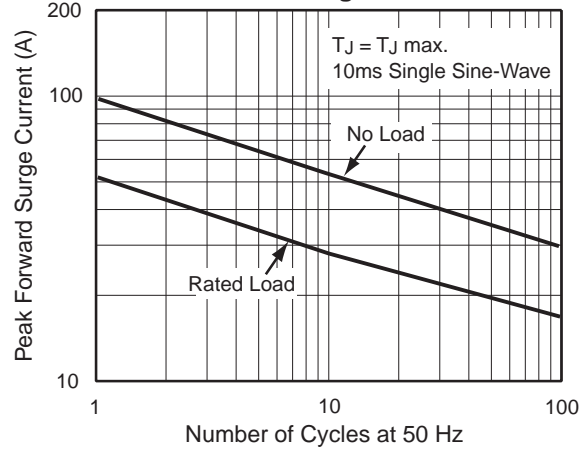


Fig. 3 - Maximum Peak Repetitive Forward Surge Current

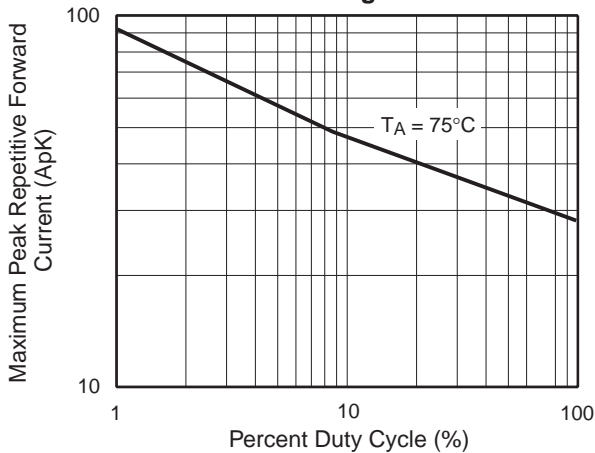


Fig. 4 - Typical Instantaneous Forward Characteristics

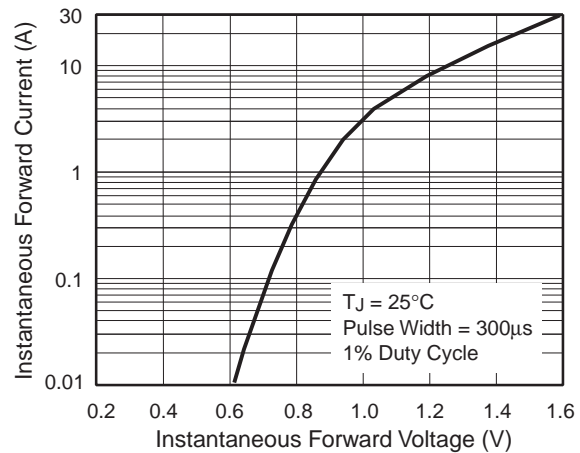


Fig. 5 - Typical Reverse Characteristics

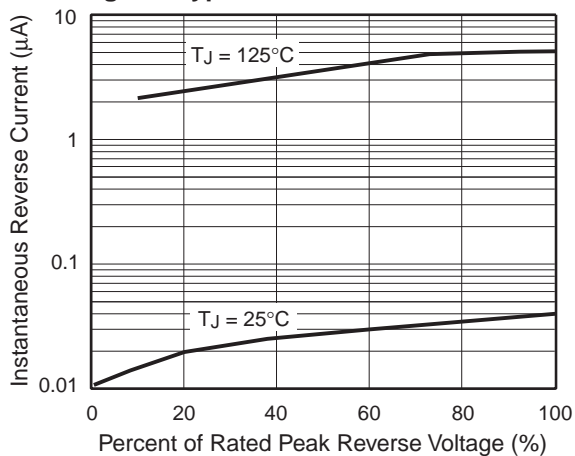


Fig. 6 - Typical Junction Capacitance

