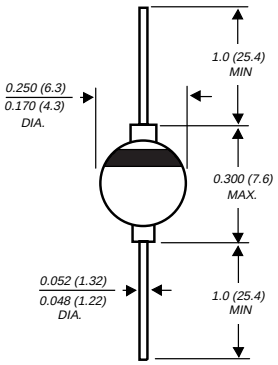
BY228 SERIES

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°C with no thermal runaway
- Typical I_R less than 0.1µA
- Hermetically sealed package
- Capable of meeting environmental standards of MIL-S-19500
- High temperature soldering guaranteed: 350°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°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°C	I_{FWM}	5.0	Amps
Peak repetitive forward surge current at T_A=75°C	I_{FRM}	10.0	Amps
Maximum peak reverse current at rated peak reverse voltage (T_A=25°C / T_J=140°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	°C/W
Operating junction temperature range	T_J	-65 to +150	°C
Storage temperature range	T_{STG}	-65 to +200	°C

NOTES:
(1) Measured with I_F=1.0A, I_R=50mA, di/dt=50mA/µs
(2) Measured with I_F=5.0A with tr=0.1µs
(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

GENERAL SEMICONDUCTOR®

RATINGS AND CHARACTERISTIC CURVES BY228 SERIES

FIG. 1 - FORWARD CURRENT DERATING CURVE

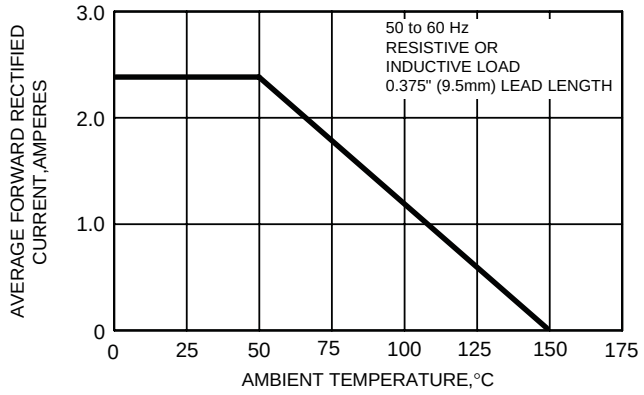


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

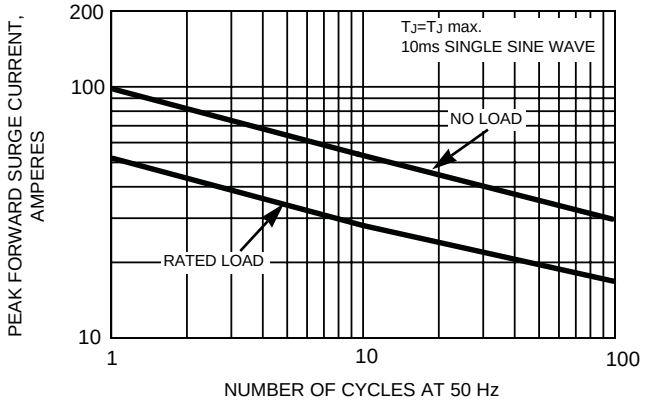


FIG. 3 -MAXIMUM PEAK REPETITIVE FORWARD SURGE CURRENT

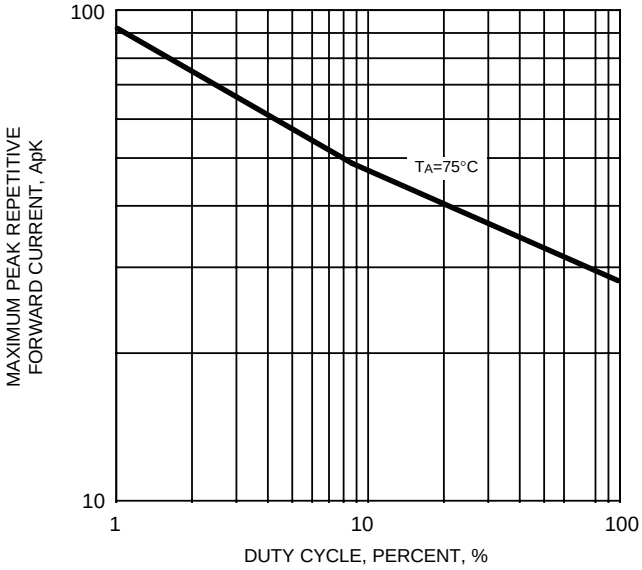


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

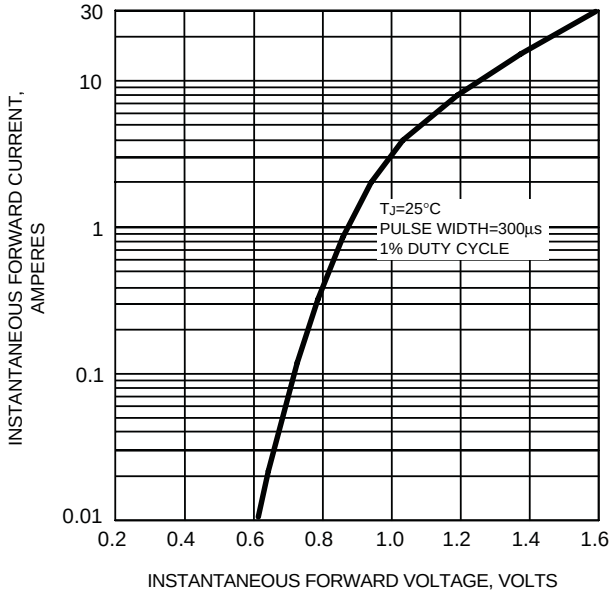


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

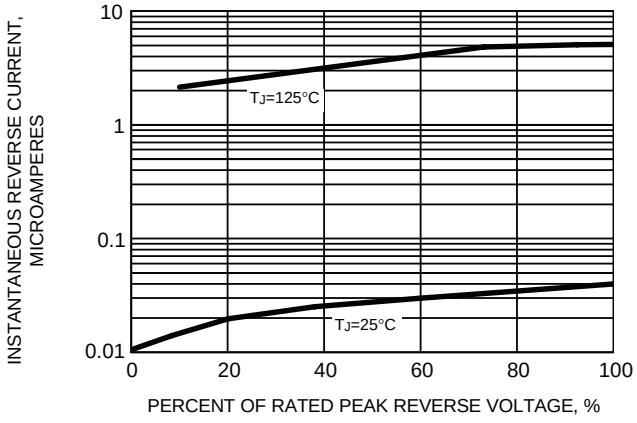
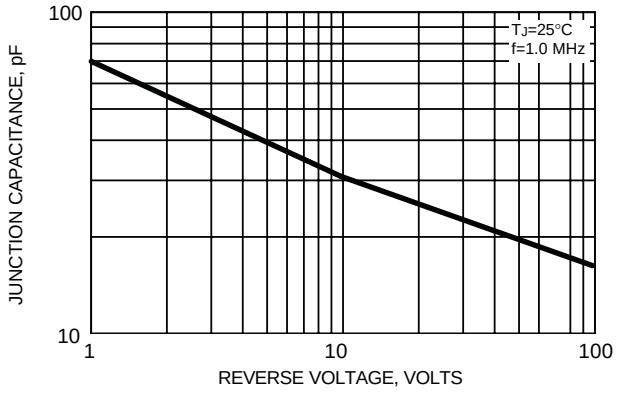


FIG. 6 - TYPICAL JUNCTION CAPACITANCE



GENERAL SEMICONDUCTOR®