

**TAYCHIPST**

Miniature Clamper/Damper Glass Passivated Rectifier

BY448GP

1650V

1.5A

FEATURES

- Superectifier structure for high reliability application
- Cavity-free glass-passivated junction
- Low forward voltage drop
- Typical I_F less than 0.1 μ A
- High forward surge capability
- Meets environmental standard MIL-S-19500
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- AEC-Q101 qualified
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

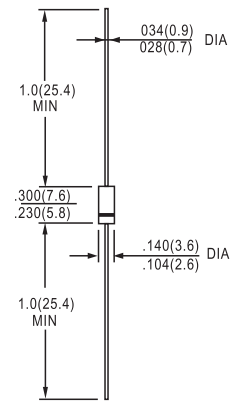
MECHANICAL DATA

Terminal:Plated axial leads solderable per
MIL-STD 202E, method 208C

Case:Molded with UL-94 Class V-0 recognized Flame
Retardant Epoxy

Polarity:color band denotes cathode

Mounting position:any



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

	SYMBOL	BY448GP	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	1650	V
Maximum RMS Voltage	V _{rms}	1150	V
Maximum DC blocking Voltage	V _{dc}	1650	V
Maximum Average Forward Rectified Current 3/8"lead length at Ta =55°C	I _{f(av)}	2.0	A
Peak Forward Surge Current 8.3ms single Half sine-wave superimposed on rated load	I _{fsm}	30.0	A
Maximum Instantaneous Forward Voltage at 3.0A	V _f	1.60	V
Maximum full load reverse current full cycle Average at 55°C	I _{r(av)}	100.0	μ A
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =150°C	I _r	5.0 150.0	μ A μ A
Typical Reverse Recovery Time (Note 1)	T _{rr}	1000	nS
Typical Thermal Resistance (Note 2)	R _{th(ja)}	100	K/W
Storage and Operating Junction Temperature	T _{stg} , T _j	-65 to +175	°C

Note:

1. Reverse Recovery Condition $I_F = 0.5A$, $I_R = 1.0A$, $I_{rr} = 0.25A$
2. Thermal Resistance from Junction to Ambient on PC board with spacing 25mm



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RATINGS AND CHARACTERISTIC CURVES

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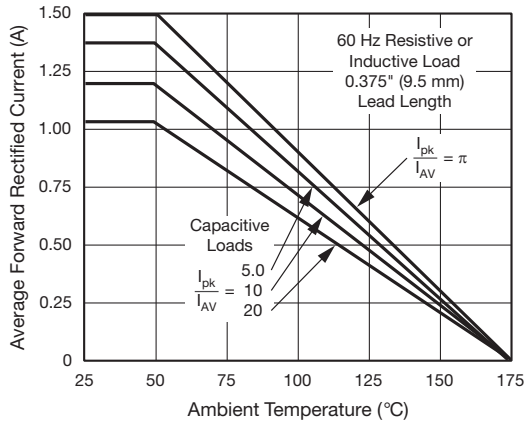


Fig. 1 - Forward Current Derating Curve

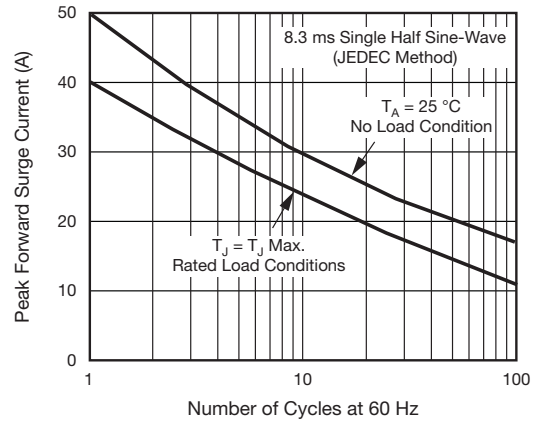


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

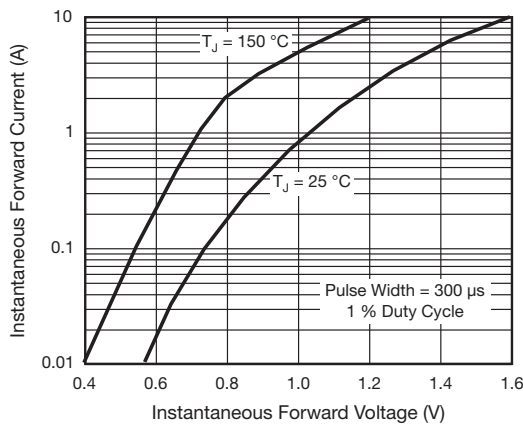


Fig. 3 - Typical Instantaneous Forward Characteristics

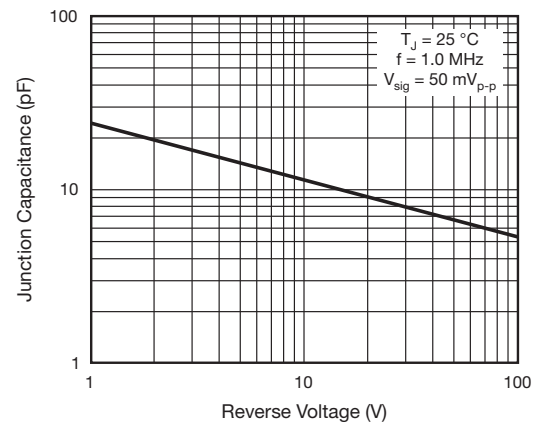


Fig. 5 - Typical Junction Capacitance

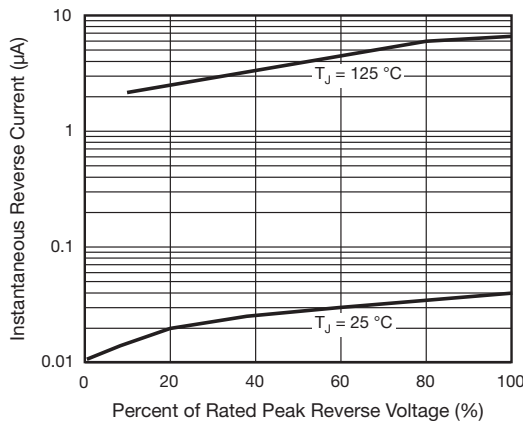


Fig. 4 - Typical Reverse Characteristics