



High Efficiency Glass Passivated Rectifiers

Reverse Voltage - 50 to 600 Volts
Forward Current - 30.0 Ampere

Features

- Low power
- Low thermal resistance
- Low forward voltage drop
- High current capability
- High fast switching capability
- High surge capacity
- High reliability

Mechanical Data

- Case: JEDEC TO-3P Molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

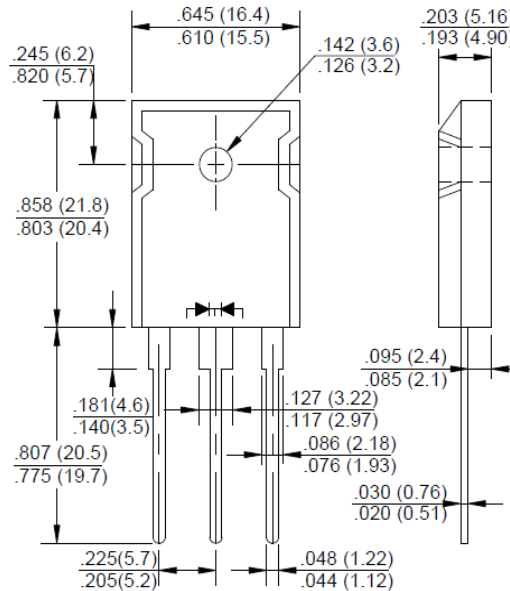
Applications

- For use in SMPS, high frequency inverters, PWM and polarity protection applications

TO-3P



RoHS
COMPLIANT



Package Outline Dimensions in Inches (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%.

Characteristics	Symbol	HER 3001PT	HER 3002PT	HER 3003PT	HER 3004PT	HER 3005PT	HER 3006PT	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	V
Maximum Average Forward Rectified Current @T _A =75 °C	I _O	30						A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	300						A
Typical Thermal Resistance Junction to Ambient	R _{θJA}	1.0						°C/W
Typical Junction Capacitance (Note1)	C _J	125						pF
Peak Forward Voltage at 15.0 A DC	V _F	1.0			1.3		1.7	V
Maximum DC Reverse Current at Rated @T _J =25°C	I _R	10						μA
DC Blocking Voltage @T _J =100°C		150						
Maximum Reverse Recovery Time (Note 2)	T _{RR}	70						nS
Operating and Storage Temperature Range	T _J ,T _{STG}	-55 to + 150						°C

Notes: 1.Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2.Measured with I_F=0.5A,I_R=1A,I_{RR}=0.25A.

3.The typical data above is for reference only.

Fig. 1 - Forward Current Derating Curve

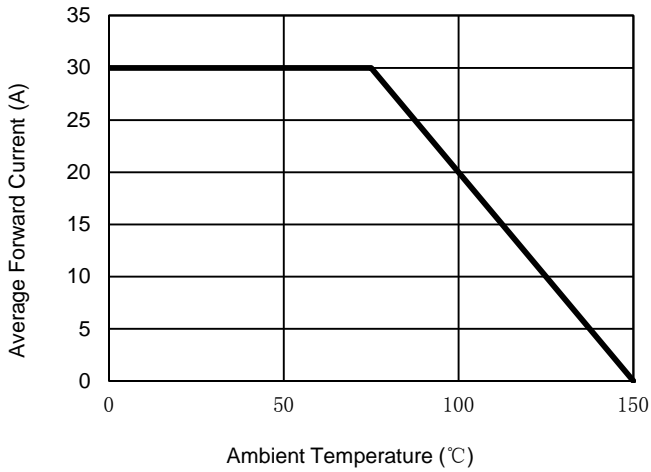


Fig. 2 - Maximum Non-Repetitive Surge Current

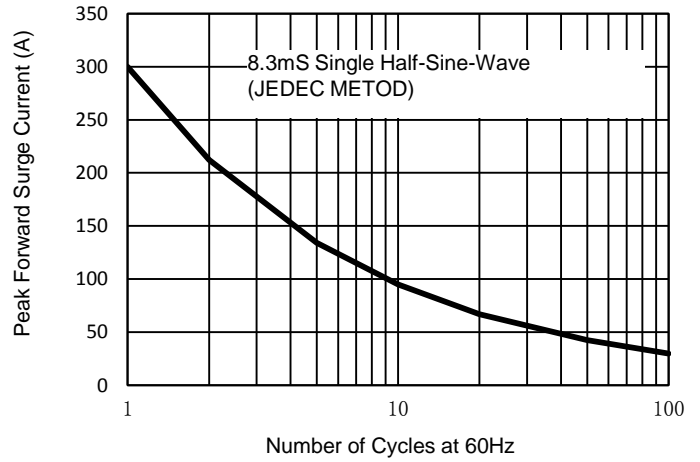


Fig. 3 - Typical Reverse Characteristics

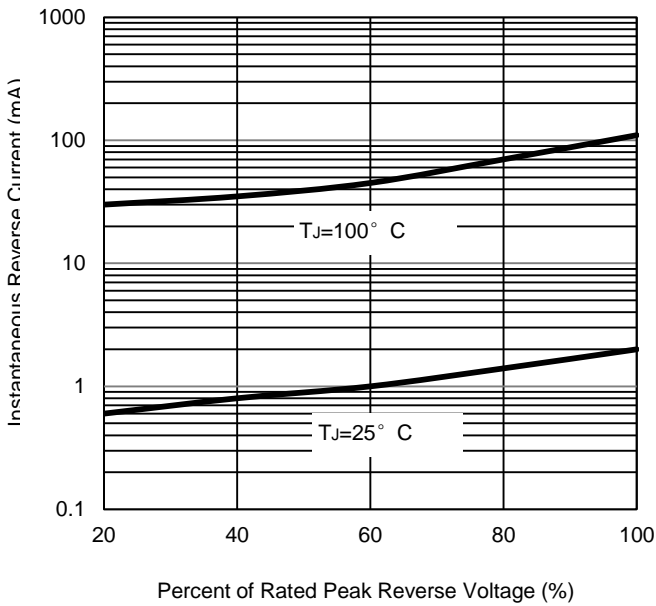


Fig. 4 - Typical Forward Characteristics

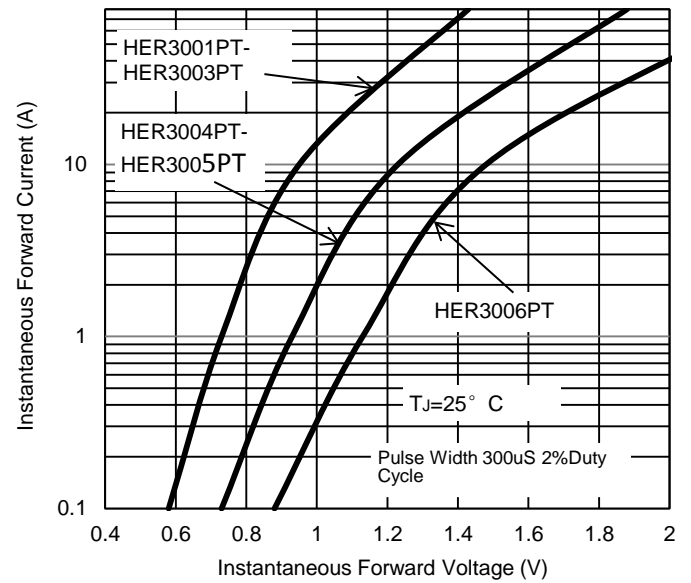
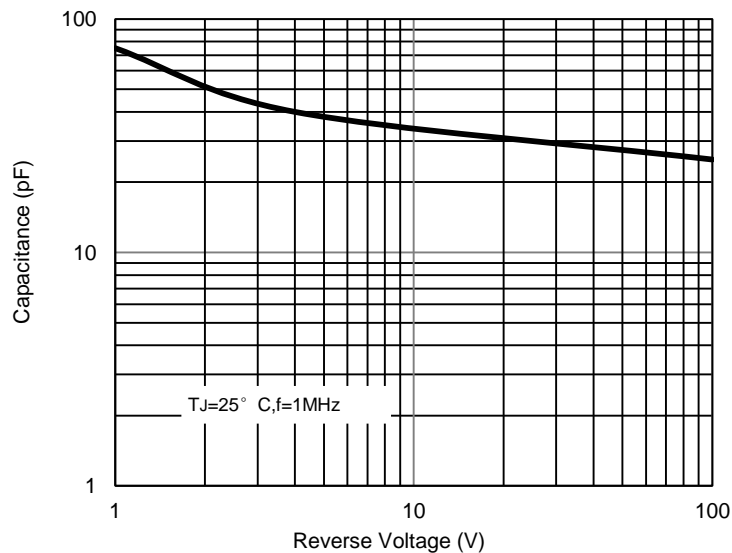


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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