HERF1601 THRU HERF1606

High Voltage Products. High Voltage Experts.

High Efficiency Glass Passivated Rectifiers

Reverse Voltage - 50 to 600 Volts
Forward Current - 16.0 Ampere

Features

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

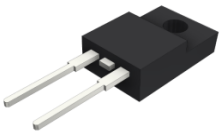
Mechanical Data

- Case: JEDEC ITO-220AC Molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

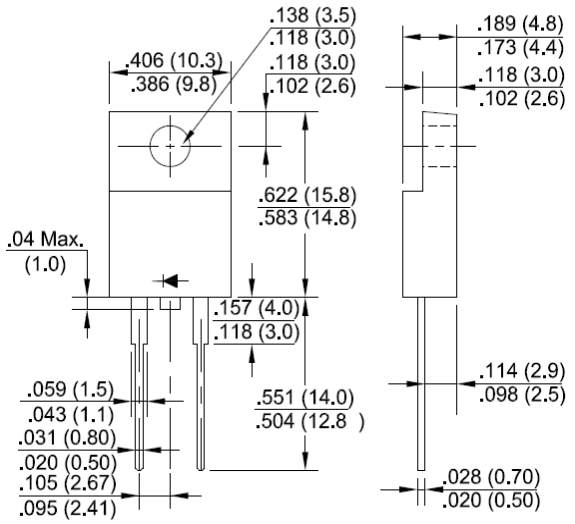
Applications

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

ITO220AC



RoHS COMPLIANT



Package Outline Dimensions in Inches (Millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	HERF 1601	HERF 1602	HERF 1603	HERF 1604	HERF 1605	HERF 1606	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 ℃	I_O	16.0						A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	250						A
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	2.5						℃/W
Typical Junction Capacitance (Note1)	C_J	80						pF
Peak Forward Voltage at 16.0 A DC	V_F	1.0			1.3		1.7	V
Maximum DC Reverse Current at Rated @T_J=25℃ DC Blocking Voltage @T_J=100℃	I_R	10 150						μA
Maximum Reverse Recovery Time (Note 2)	T_{RR}	60						nS
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to + 150						℃

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

2.Measured with IF=0.5A,IR=1A,IRR=0.25A.

3.The typical data above is for reference only.

HERF160*-U-00-00

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Fig. 1 - Forward Current Derating Curve

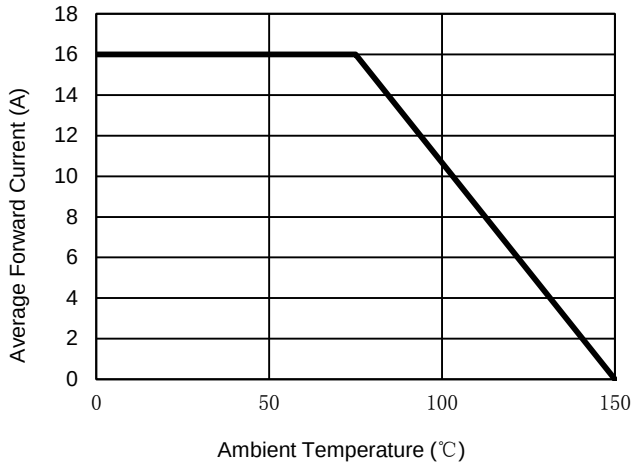


Fig. 2 - Maximum Non-Repetitive Surge Current

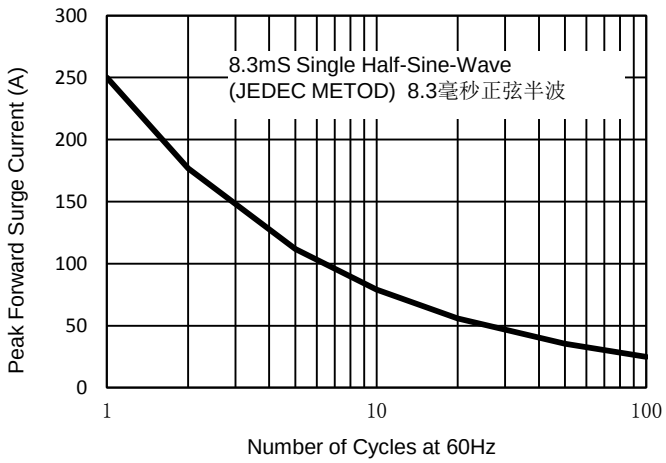


Fig. 3 - Typical Reverse Characteristics

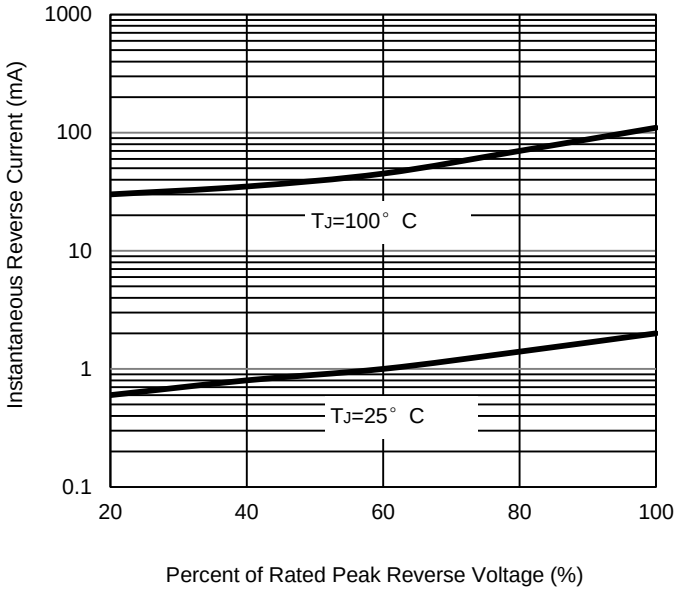


Fig. 4 - Typical Forward Characteristics

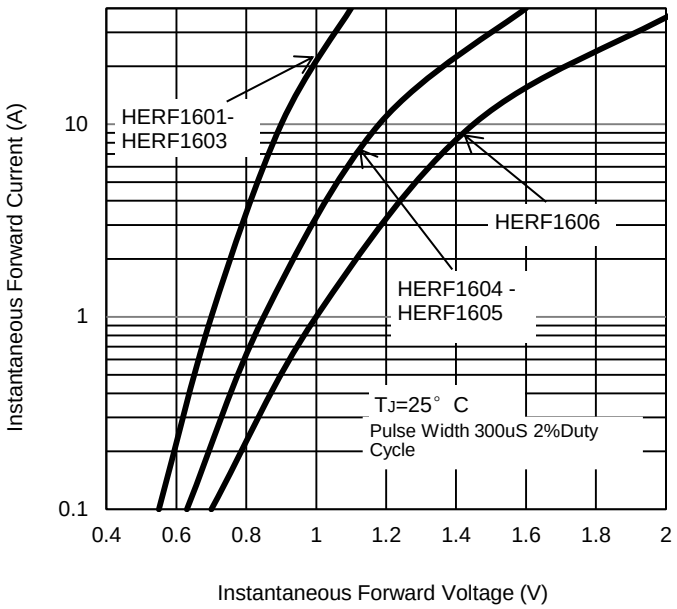
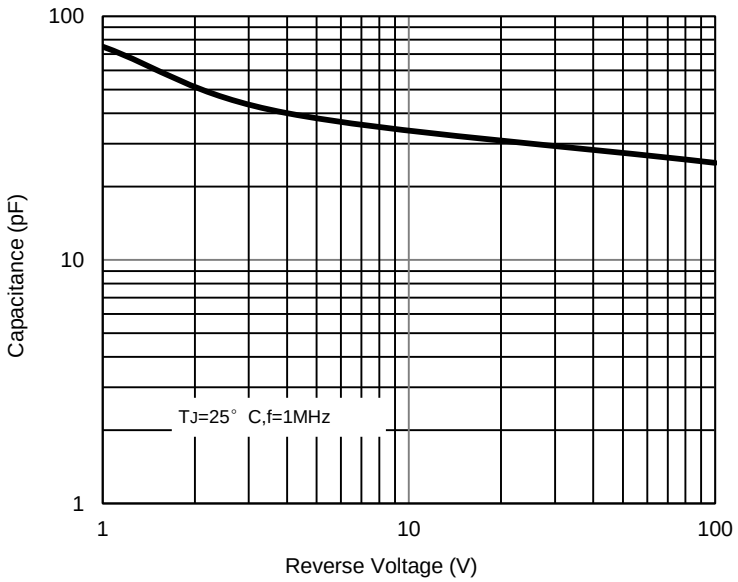


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.

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