



Glass Passivated Super Fast Recovery Rectifier

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

Features

- Fast switching for high efficiency
- Low cost
- Low reverse leakage current
- High current capability
- Low forward voltage drop
- Meet UL flammability classification 94V-0

Mechanical Data

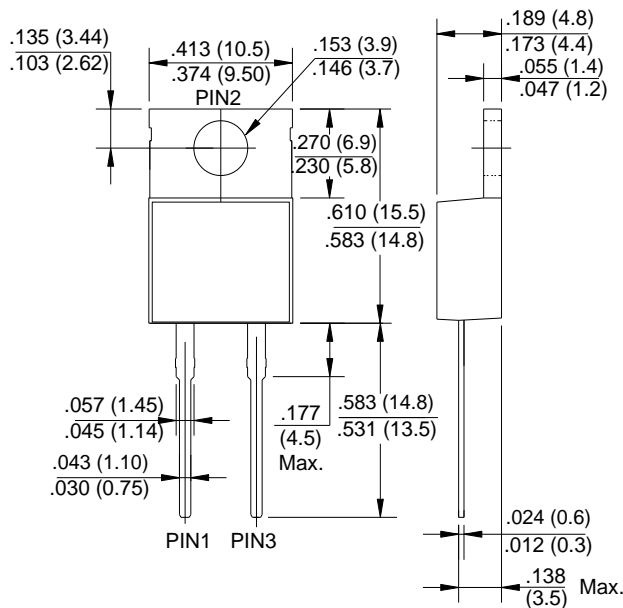
- Case: TO-220AC Molded plastic
- Polarity: Polarity: As marked on the body
- Mounting position: Any

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited.

Applications

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

TO-220AC



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	SF 1601	SF 1602	SF 1603	SF 1604	SF 1605	SF 1606	SF 1608	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current @ $T_A=75^\circ\text{C}$	$I_{(AV)}$	16.0							A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	200							A
Peak Forward Voltage at 16.0A DC (Note1)	V_F	1.0			1.3		1.7		V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J=100^\circ\text{C}$	I_R	10			500				μA
Maximum Reverse Recovery Time (Note 2)	t_{rr}	35							nS
Operating Junction Temperature Range	T_J, T_{STG}	-55 to + 150							$^\circ\text{C}$

Notes: 1. 300uS pulse width, 2%duty cycle.

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

3. The typical data above is for reference only



Fig. 1 - Forward Current Derating Curve

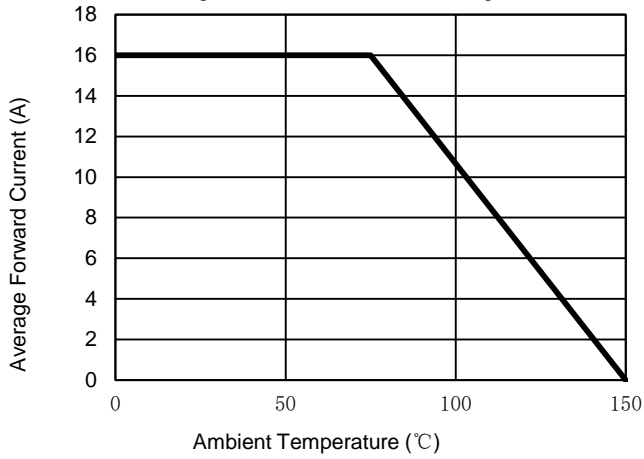


Fig. 2 - Maximum Non-Repetitive Surge Current

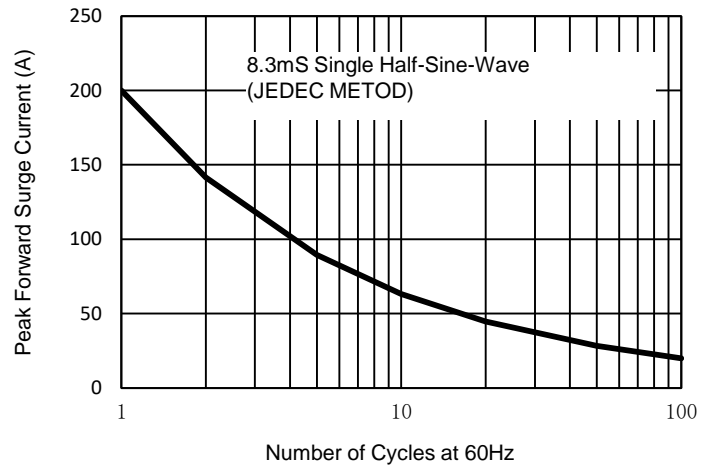


Fig. 3 - Typical Reverse Characteristics

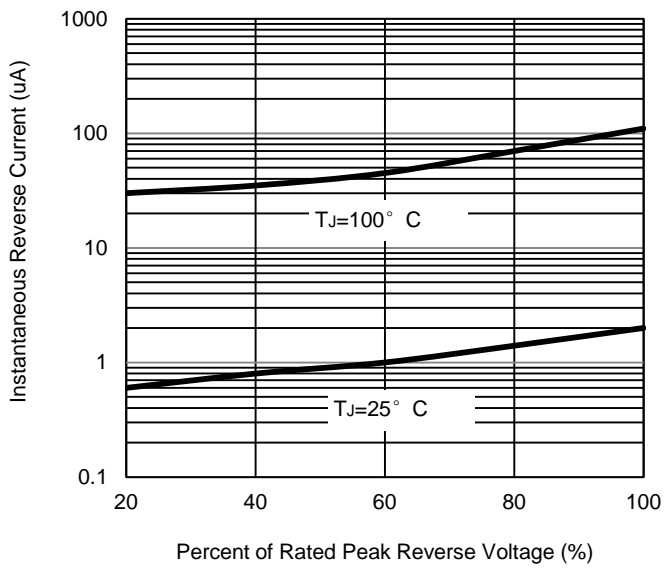
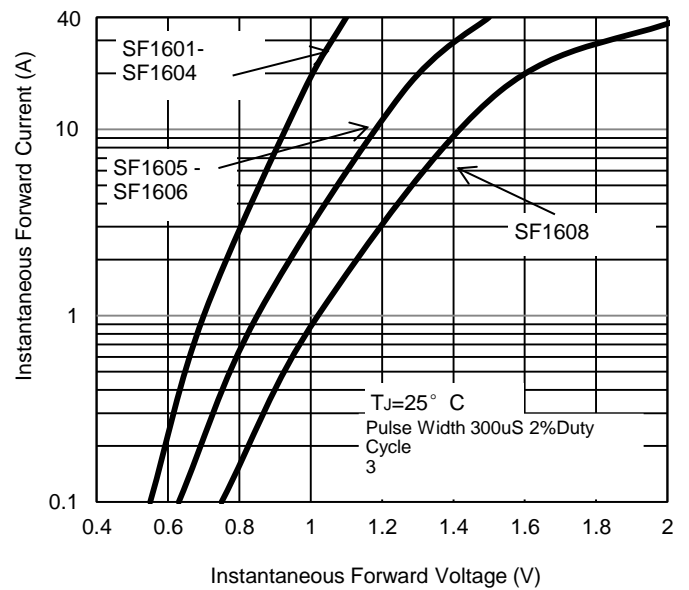


Fig. 4 - Typical Forward Characteristics





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