Surface Mount Schottky Barrier Recitifiers

Reverse Voltage - 45Volts

Forward Current - 10.0 Amperes

Features

- Low power loss, high efficiency
- For surface mounted applications
- Low forward voltage drop
- Trench schottky technology
- Meet UL flammability classification 94V-0

Mechanical Data

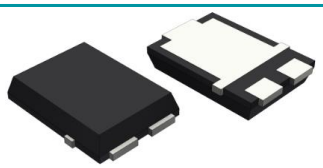
- Case: JEDEC TO-277A molded plastic
- Polarity: As marked on the body
- Mounting position: Any

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

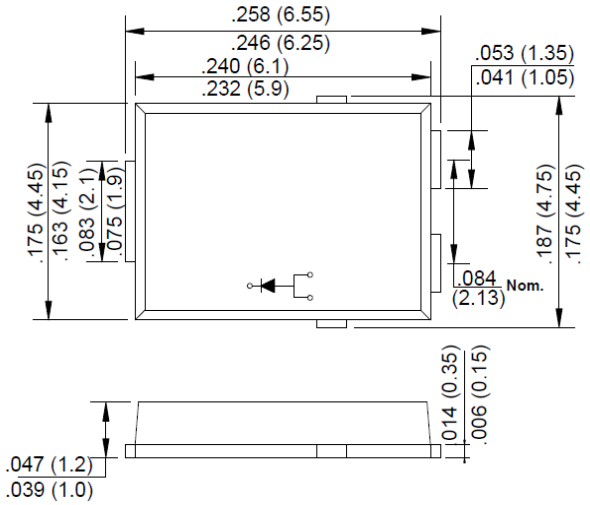
Applications

- For use in low voltage, high frequency inverters, polarity protection applications

TO-277A



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	S10P45U		Unit
Maximum Repetitive Peak Reverse Voltage			V_{RRM}	45		V
Maximum RMS Voltage			V_{RMS}	31.5		V
Maximum DC Blocking Voltage			V_{DC}	45		V
Maximum Average Forward Rectified Current (Note 1) @ Tc=110℃			$I_{F(AV)}$	10.0		A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)			I_{FSM}	300		A
Peak Forward Voltage (Note2)	I_F=3.0A	T_J=25℃	V_F	0.33 (TYP.)		V
	I_F=5.0A			0.36 (TYP.)		
	I_F=10.0A			0.41 (TYP.)	0.45 (MAX.)	
	I_F=3.0A	T_J=125℃		0.25 (TYP.)		
	I_F=5.0A			0.30 (TYP.)		
	I_F=10.0A			0.39 (TYP.)		
Maximum DC Reverse Current @T_J=25℃			I_R	0.3 (MAX.)		mA
at Rated DC Blocking Voltage @T_J=125℃				9.1 (TYP.)		mA
Typical Thermal Resistance Junction to Ambient			$R_{\theta JA}$	60		℃/W
Typical Thermal Resistance Junction to Case			$R_{\theta JC}$	8		℃/W
Junction Temperature Range			T_J	-55 to+150		℃
Storage Temperature Range			T_{STG}	-55 to+150		℃

Notes: 1. Mounted on 50 cm^2 FR-4 PCB 。

2. 300uS pulse width, 2%duty cycle. 300uS

3. The typical data above is for reference only .

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Rating and Characteristic Curves

S10P45U

Fig. 1 - Forward Current Derating Curve

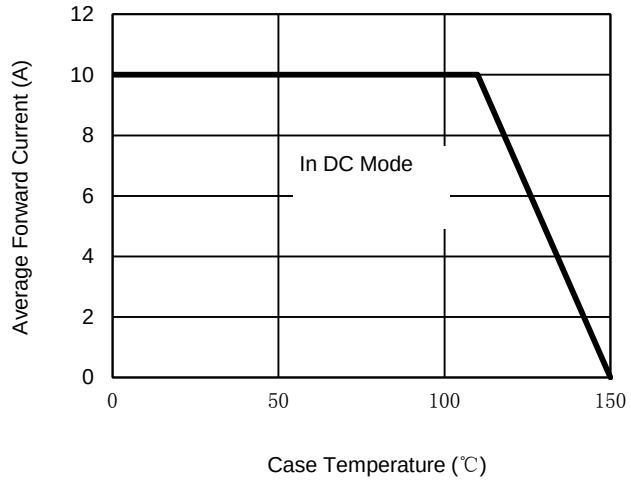


Fig. 2 - Maximum Non-Repetitive Surge Current

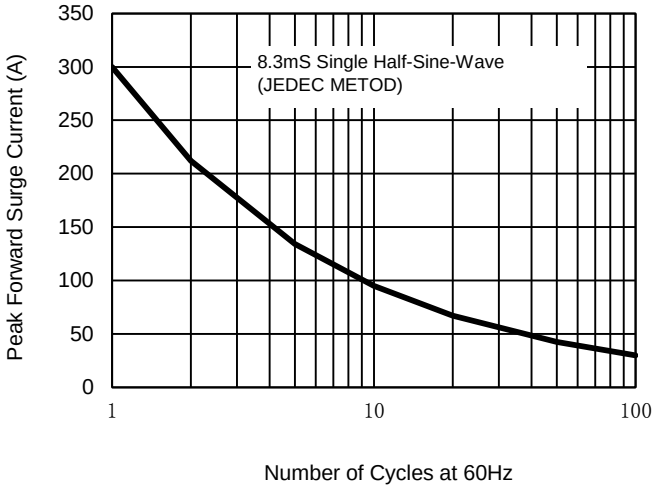


Fig. 3 - Typical Reverse Characteristics

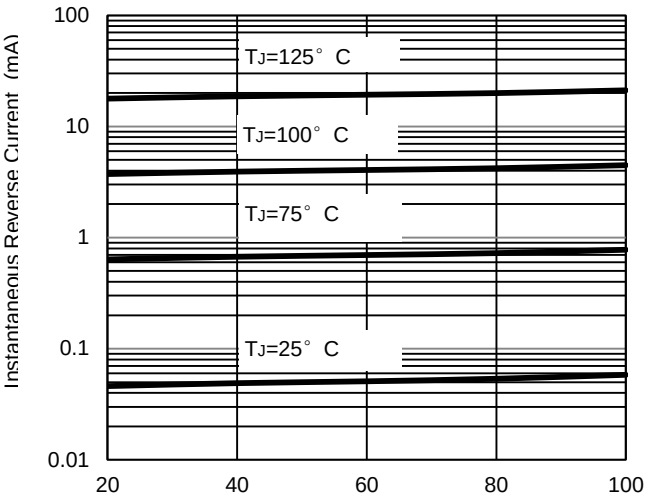
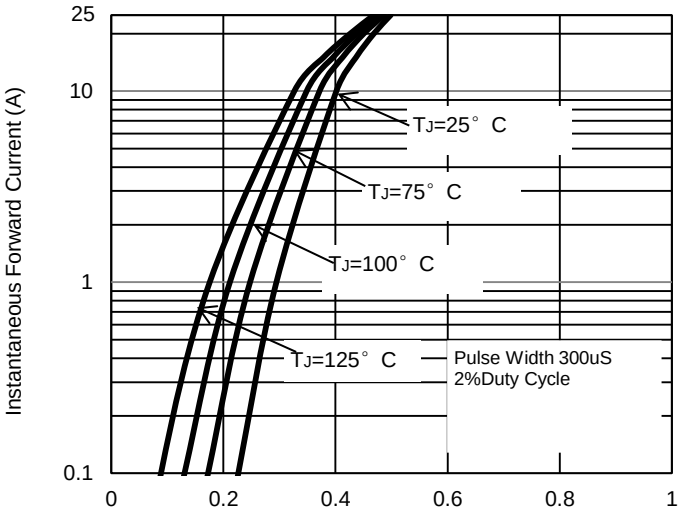


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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