



Surface Mount Schottky Barrier Rectifiers

Reverse Voltage - 45Volts
Forward Current - 10.0 Amperes

Features

- Low power loss, high efficiency
- For surface mounted applications
- Low forward voltage drop

Mechanical Data

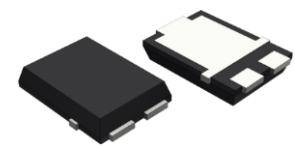
- Case: JEDEC TO-277A molded plastic
- Polarity: As marked on the body
- Mounting position: Any

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

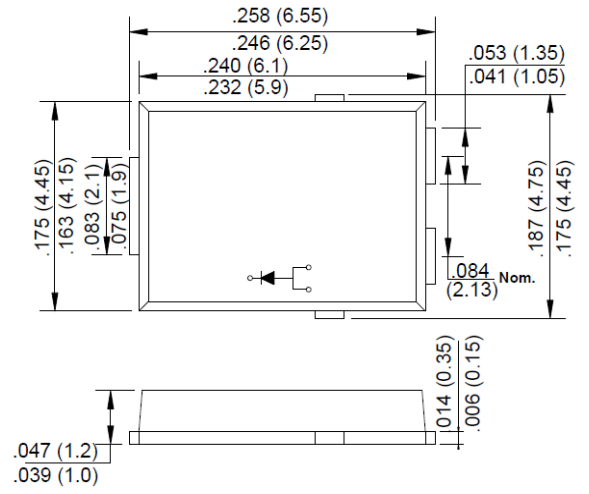
Applications

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

TO-277A



RoHS COMPLIANT



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	S10P45L	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) @ T _c =110°C	I _{F(AV)}	10.0	A		
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	275	A		
Peak Forward Voltage (Note2)	V _F	T _J =25°C	IF=3.0A	0.34 (TYP.)	V
			IF=5.0A	0.38 (TYP.)	
		T _J =125°C	IF=10.0A	0.44 (TYP.) 0.47 (MAX.)	
			IF=3.0A	0.27 (TYP.)	
		IF=5.0A	0.32 (TYP.)		
		IF=10.0A	0.41 (TYP.)		
Maximum DC Reverse Current @T _J =25°C at Rated DC Blocking Voltage @T _J =125°C	I _R		0.25 (MAX.)	mA	
			8.6 (TYP.)	mA	
Typical Thermal Resistance Junction to Ambient	R _{θJA}	60	°C/W		
Typical Thermal Resistance Junction to Case	R _{θJC}	8	°C/W		
Junction Temperature Range	T _J	-55 to+150	°C		
Storage Temperature Range	T _{STG}	-55 to+150	°C		

- Notes: 1. Mounted on 50 cm² FR-4 PCB .
2. 300uS pulse width, 2%duty cycle.
3. The typical data above is for reference only .



Fig. 1 - Forward Current Derating Curve

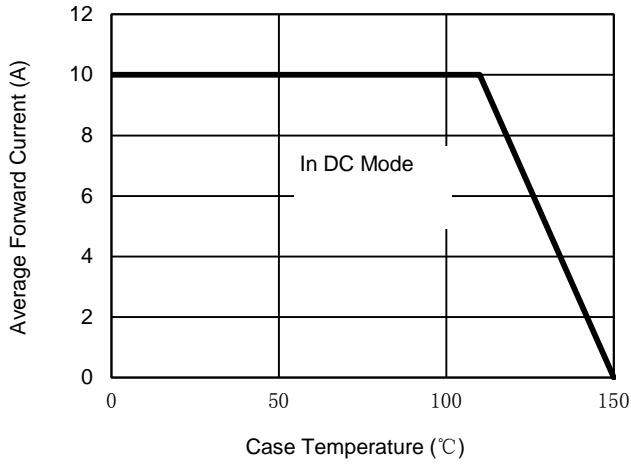


Fig. 2 - Maximum Non-Repetitive Surge Current

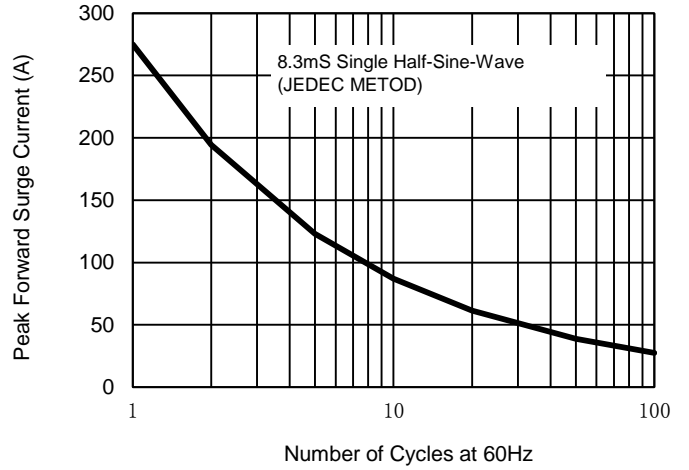


Fig. 3 - Typical Reverse Characteristics

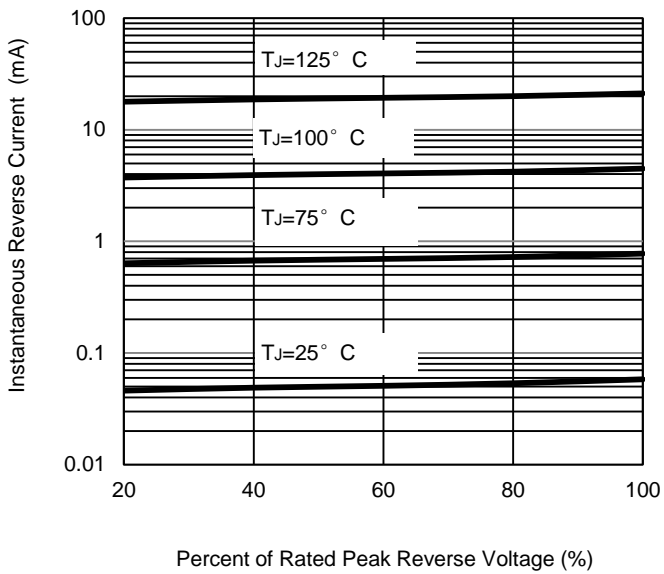
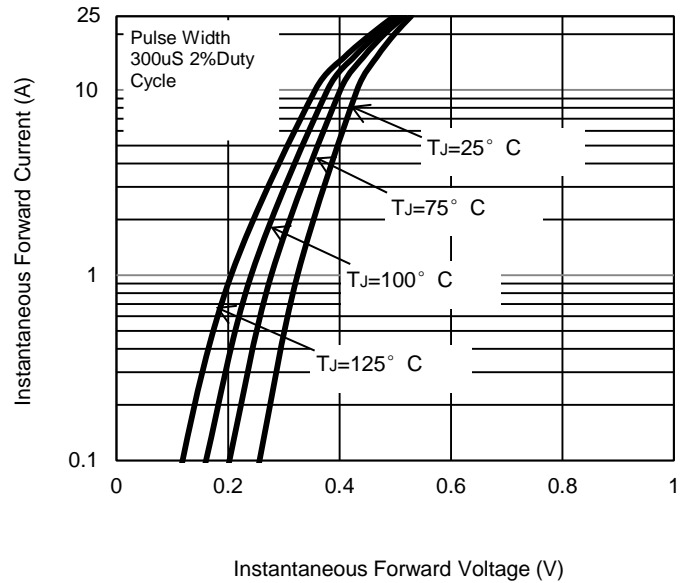


Fig. 4 - Typical Forward Characteristics





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