



Surface Mount Schottky Barrier Rectifiers

Reverse Voltage - 45Volts
Forward Current - 15.0 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

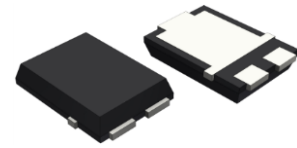
● Mounting position: Any

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

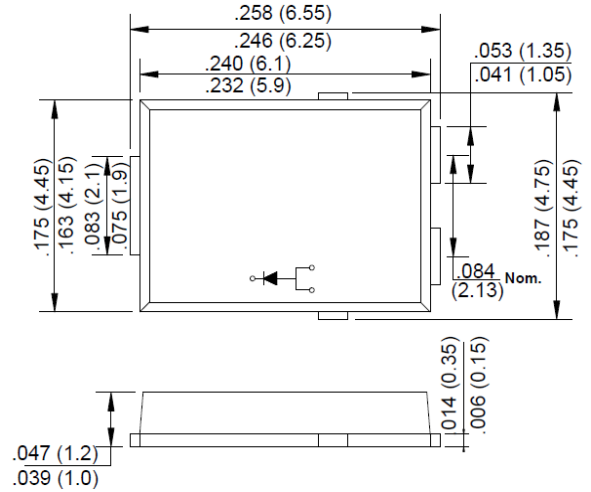
Applications

- 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°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Characteristics	Symbol	S15P45	Unit		
Maximum Repetitive Peak Reverse Voltage	VRRM	45	V		
Maximum Average Forward Rectified Current	IF(AV)1	15	A		
	IF(AV)2	4.8			
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	210	A		
Peak Forward Voltage (Note3)	IF=5.0A	TA=25°C	0.40 (TYP.)	V	
			0.45 (TYP.)		
	IF=7.5A	TA=25°C	0.49 (TYP.)		0.58 (MAX.)
			0.31 (TYP.)		0.34 (TYP.)
	IF=5.0A	TA=125°C	0.42 (TYP.)		0.51 (MAX.)
			0.31 (TYP.)		0.34 (TYP.)
Maximum DC Reverse Current @TJ=25°C at Rated DC Blocking Voltage @TJ=125°C	IR	1500 (MAX.)	uA		
		15 (TYP.)	50 (MAX.)	mA	
Typical Thermal Resistance Junction to Ambient	RθJA	75	°C/W		
Junction to Pad	RθJM	4	°C/W		
Junction Temperature Range	TJ	-55 to+150	°C		
Storage Temperature Range	TSTG	-55 to+150	°C		

- Notes: 1. Mounted on 30 mm x 30 mm pad areas aluminum PCB .
 2. Free air, mounted on recommended copper pad area .
 3. 300uS pulse width, 2%duty cycle.
 4. The typical data above is for reference only .



Fig. 1 - Forward Current Derating Curve

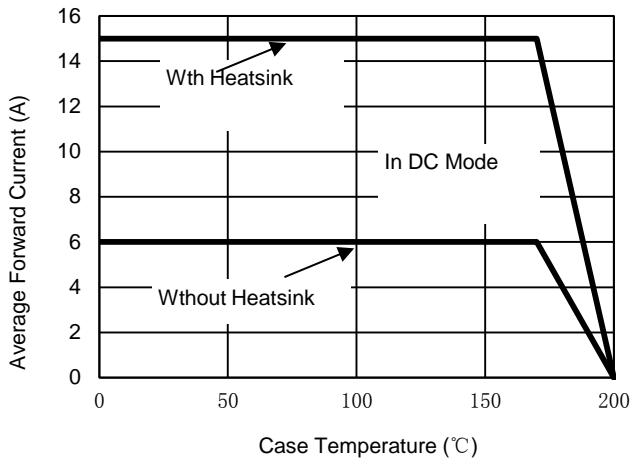


Fig. 2 - Maximum Non-Repetitive Surge Current

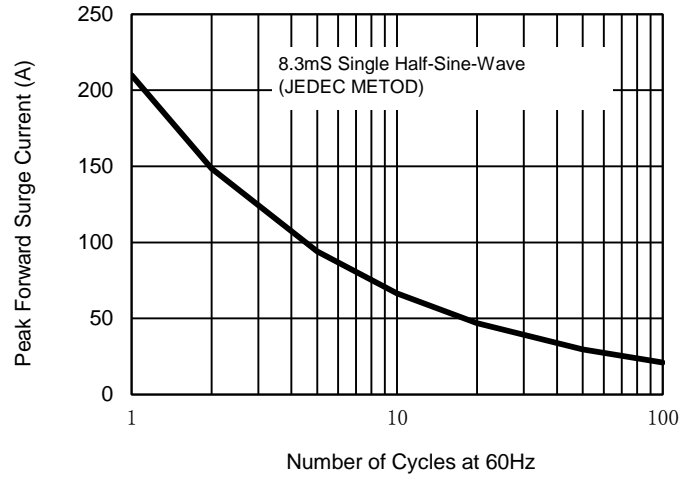


Fig. 3 - Typical Reverse Characteristics

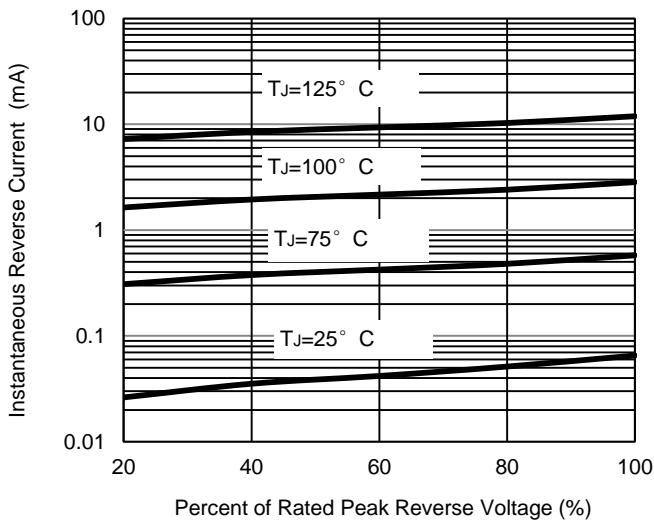


Fig. 4 - Typical Forward Characteristics

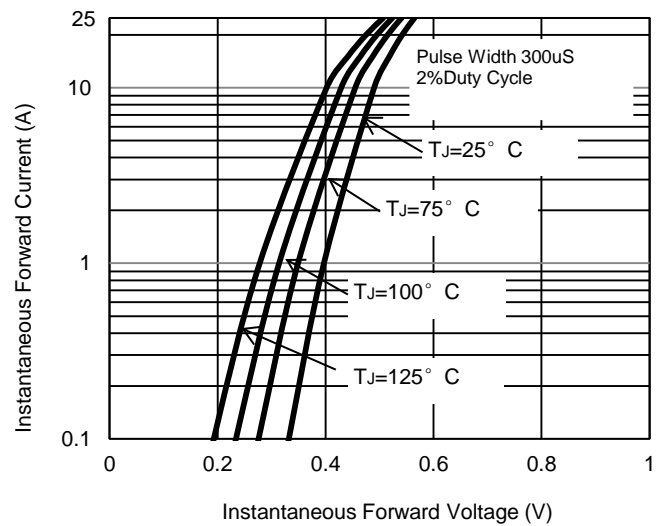
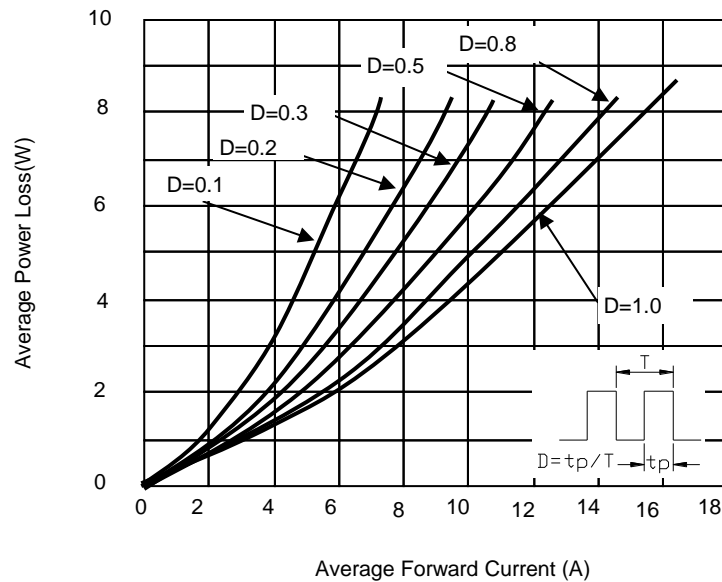


FIG. 5 - Forward Power Loss Characteristics



The curve above is for reference only.



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