



Photovoltaic Solar Cell Protection Schottky Diode

**Reverse Voltage - 45 Volts
Forward Current - 25.0 Amperes**

Features

- Low power loss, high efficiency
- High current capability, low V_F
- High surge capacity

Mechanical Data

- Case: JEDEC D2PAK molded plastic
- Polarity: Polarity: As marked on the body
- Mounting position: Any

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

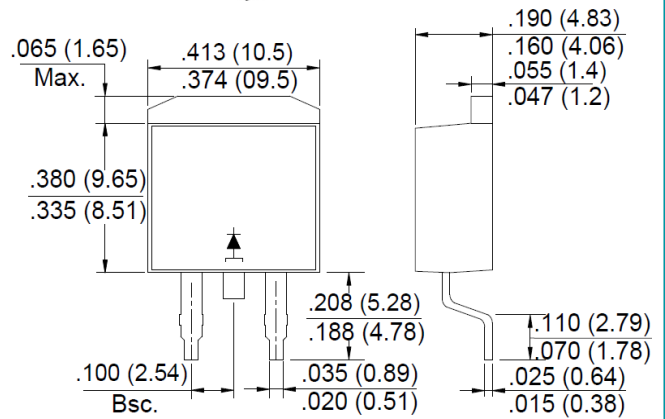
Applications

- For use in solar cell junction box as a bypass diode

D2PAK



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	TP2545	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 @T _c =170 °C	I _(AV)	25	A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I _{FSM}	320	A
Peak Forward Voltage @ T _J =25°C (Note1)	@I _F =10A	0.46	V
	@I _F =15A	0.50	
	@I _F =25A	0.56	
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _J =25°C	0.1	mA
	@T _J =75°C	1.5	
	@T _J =100°C	30	
	@T _J =125°C	100	
Typical Thermal Resistance Junction to Case	R _{θJC}	1.5	°C/W
Operating Temperature Range	T _J	-55 to+200	°C
Storage Temperature Range	T _{STG}	-55 to+150	°C

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

2.The typical data above is for reference only.



Fig. 1 - Forward Current Derating Curve

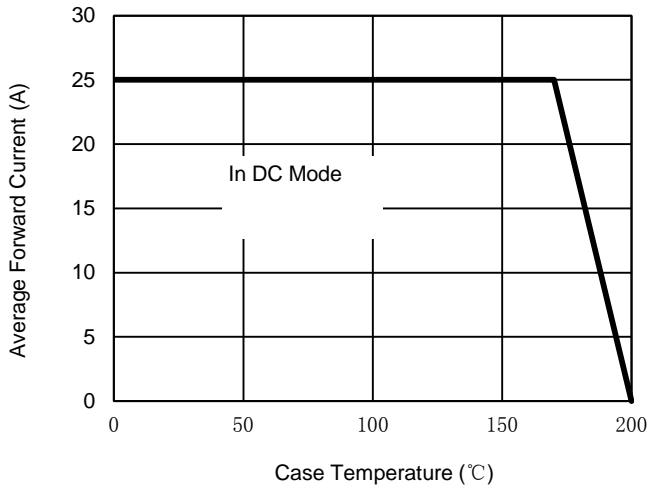


Fig. 2 - Maximum Non-Repetitive Surge Current

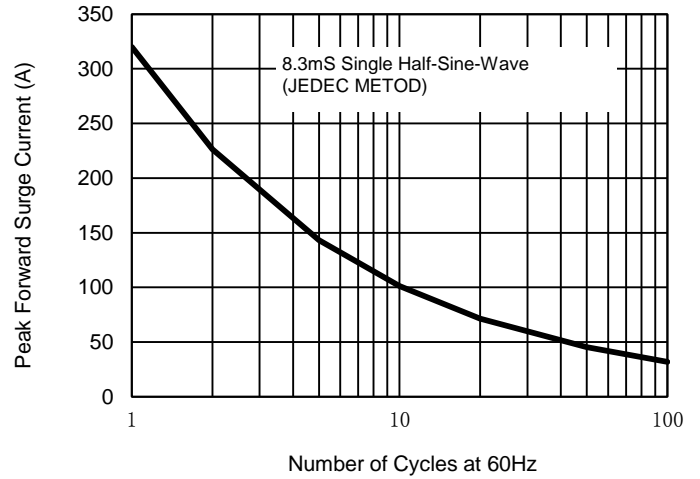


Fig. 3 - Typical Reverse Characteristics

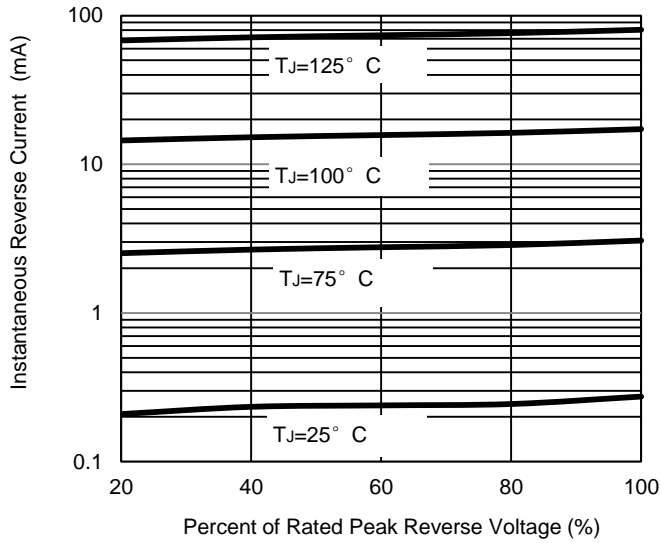
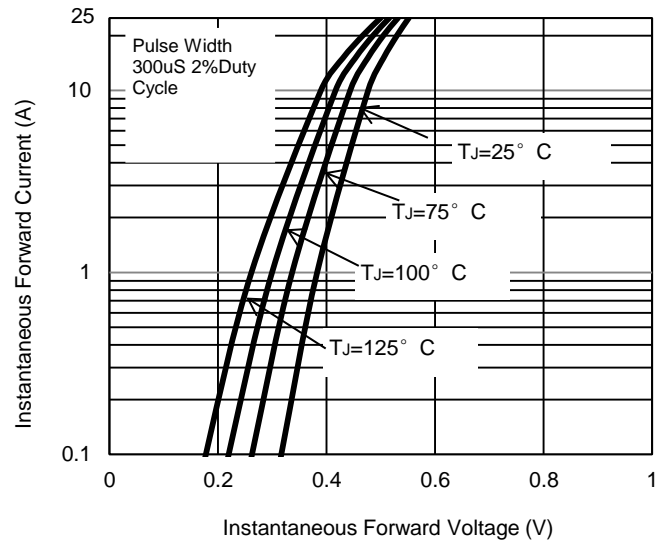


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.



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