



**Photovoltaic Solar Cell Protection Schottky Diode**

**Reverse Voltage - 45Volts**

**Forward Current - 20.0 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.

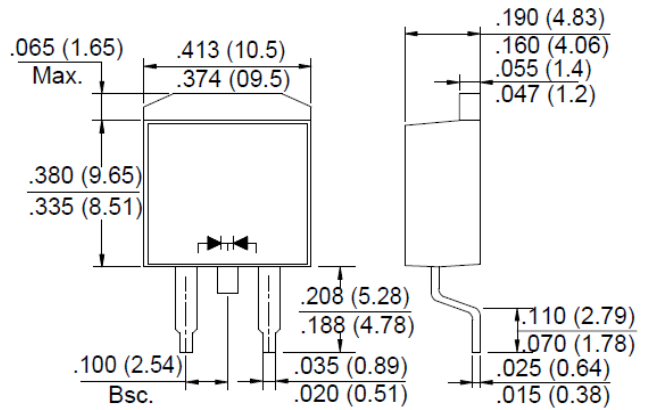
**Applications**

- 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	SPA2045C	Unit
Maximum Repetitive Peak Reverse Voltage	VRRM	45	V
Maximum RMS Voltage	VRMS	31.5	V
Maximum DC Blocking Voltage	VDC	45	V
Maximum Average Forward Rectified Current @Tc=95 °C	I(AV)	20	A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	IFSM	275	A
Peak Forward Voltage at 10A DC Per Chip (Note1)	VF	0.51	V
Maximum DC Reverse Current @Tj=25°C	IR	0.5	mA
at Rated DC Blocking Voltage @Tj=125°C		80	
Typical Thermal Resistance Junction to Case (Without Heatsink)	RθJC	1.5	°C/W
Junction Temperature Range	TJ	-55 to+200	°C
Storage Temperature Range	TSTG	-55 to+200	°C

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

2. The typical data above is for reference only .



Fig. 1 - Forward Current Derating Curve

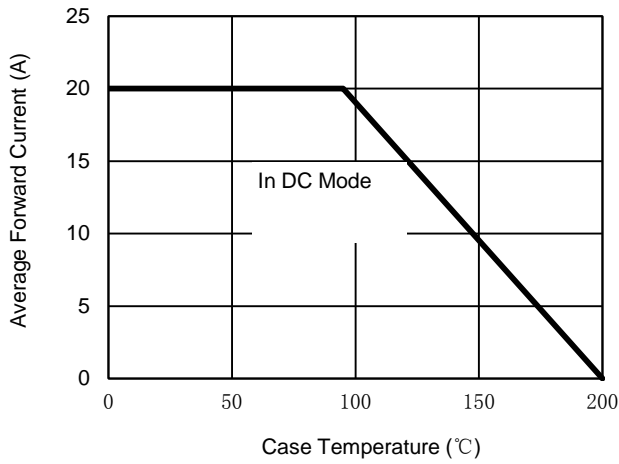


Fig. 2 - Maximum Non-Repetitive Surge Current

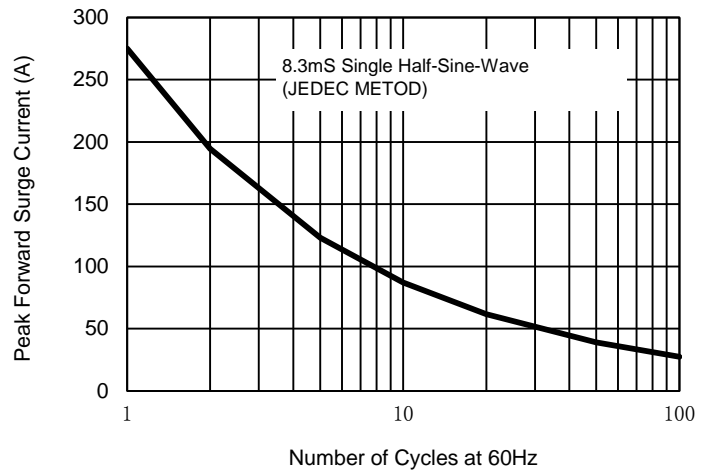


Fig. 3 - Typical Reverse Characteristics

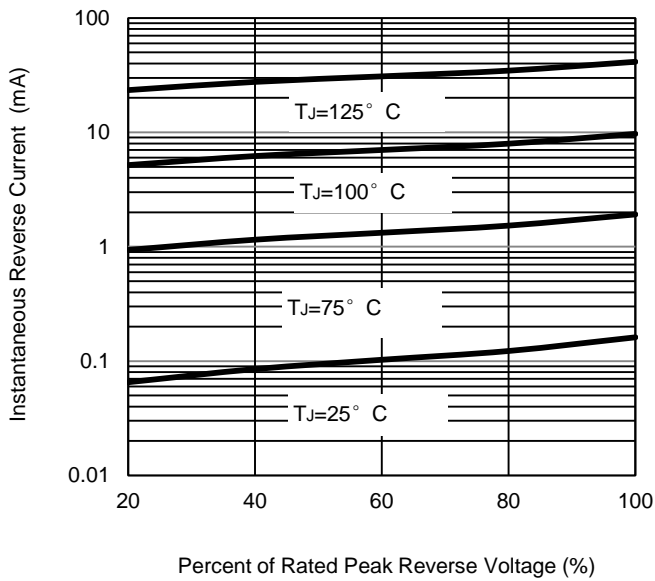
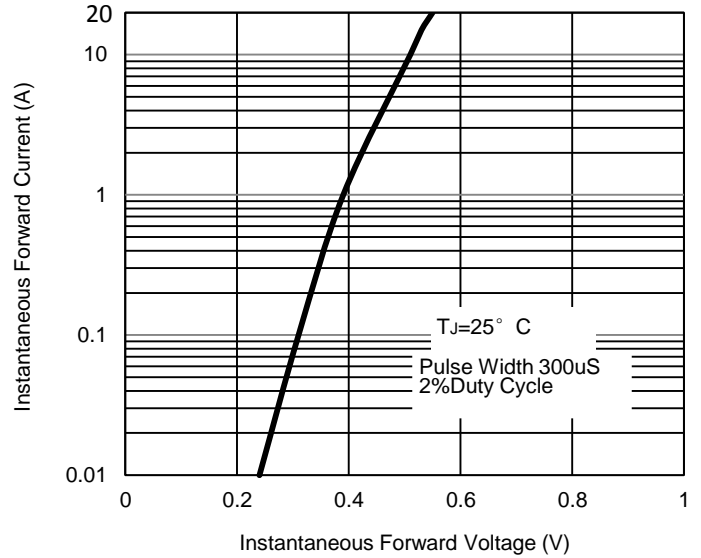


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.



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