



Photovoltaic Solar Cell Protection Schottky Diode

Reverse Voltage - 40 to 45Volts
Forward Current - 20.0 Amperes

Features

- Low power loss, high efficiency
- High current capability, low V_F
- High surge capacity
- Meets UL flammability classification 94V-0

Mechanical Data

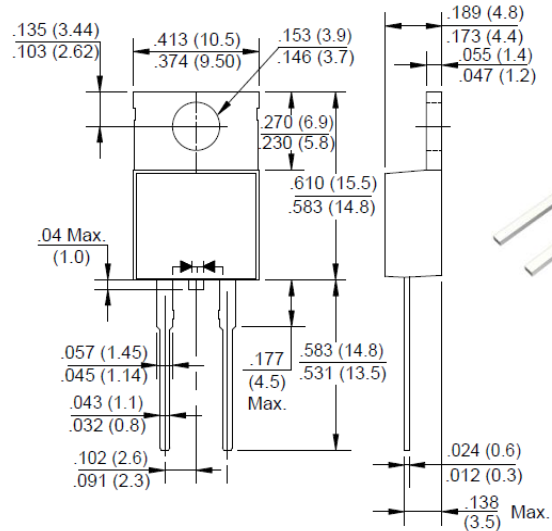
- Case: TO-220AC molded plastic
- Polarity: As marked on body
- Mounting position: Any

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

Applications

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

TO-220AC



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	SDC2040C	SDC2045C	Unit
Maximum Repetitive Peak Reverse Voltage	VRRM	40	45	V
Maximum RMS Voltage	VRMS	28	31.5	V
Maximum DC Blocking Voltage	VDC	40	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	150		A
Peak Forward Voltage at 10A DC Per Chip (Note1)	VF	0.55		V
Maximum DC Reverse Current @Tj=25°C	IR	0.5		mA
at Rated DC Blocking Voltage @Tj=125°C		50		
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

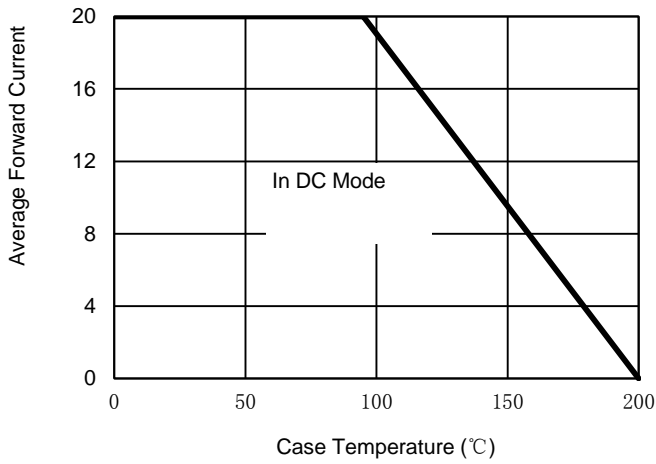


Fig. 2 - Maximum Non-Repetitive Surge Current

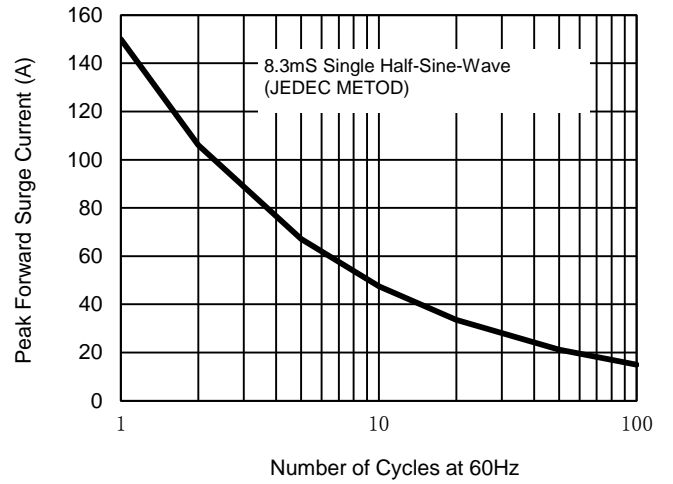


Fig. 3 - Typical Reverse Characteristics

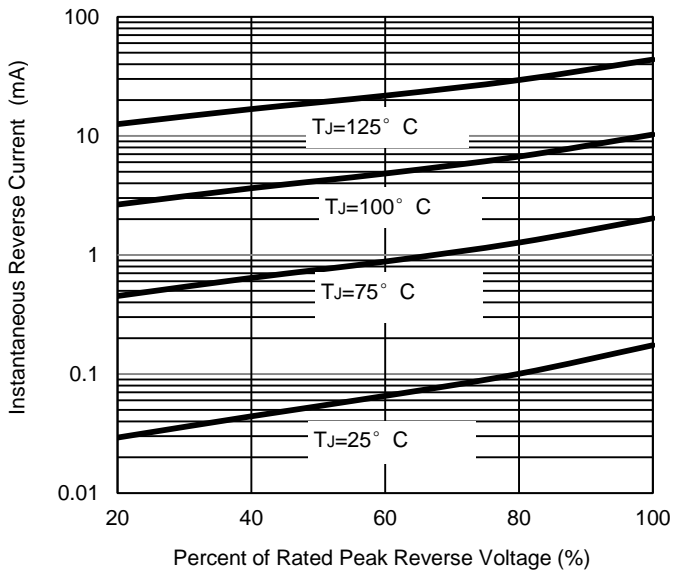
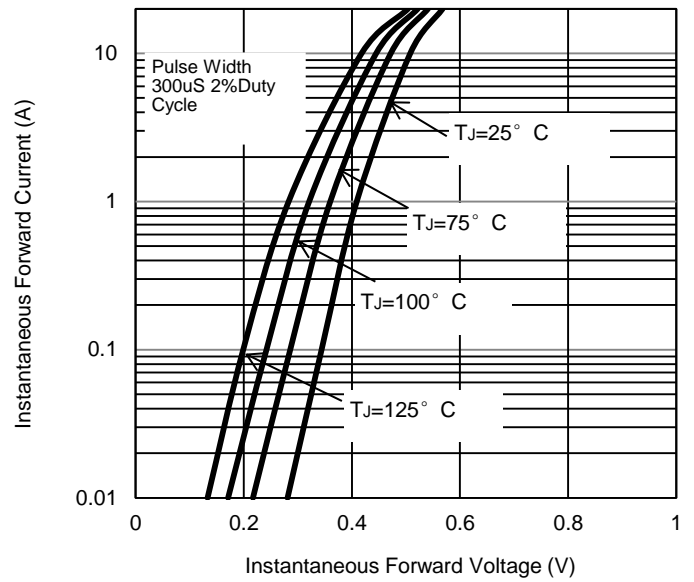


Fig. 4 - Typical Forward Characteristics





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