SP2040

Photovoltaic Solar Cell Protection Schottky Diode

Reverse Voltage - 40 Volts

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

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

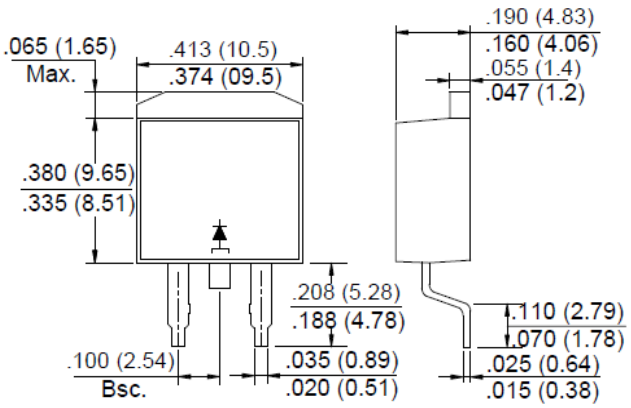
Applications

- 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℃ ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

Characteristics	Symbol	SP2040	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	40	V
Maximum RMS Voltage	V_{RMS}	28	V
Maximum DC Blocking Voltage	V_{DC}	40	V
Maximum Average Forward Rectified Current @Tc=95 ℃	$I_{(AV)}$	20	A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	400	A
Peak Forward Voltage at 20A DC (Note1)	V_F	0.6	V
Maximum DC Reverse Current @T_J=25℃	I_R	0.5	mA
at Rated DC Bolcking Voltage @T_J=125℃		50	
Typical Thermal Resistance Junction to Case (Without Heatsink)	$R_{\theta JC}$	1.5	℃/W
Junction Temperature Range	T_J	-55 to+200	℃
Storage Temperature Range	T_{STG}	-55 to+200	℃

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

2. The typical data above is for reference only .

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Fig. 1 - Forward Current Derating Curve

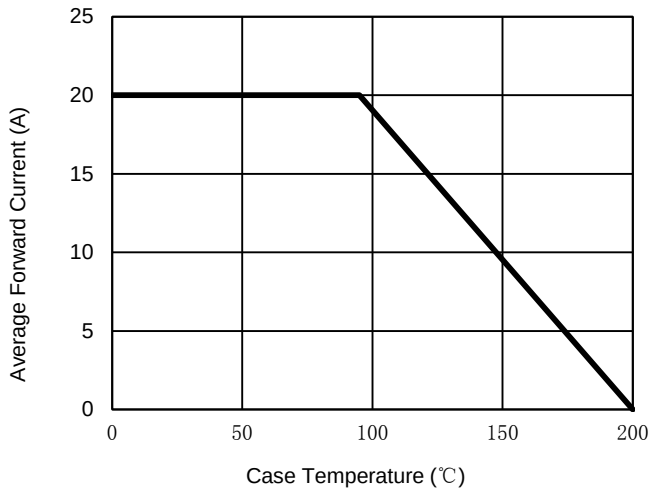


Fig. 2 - Maximum Non-Repetitive Surge Current

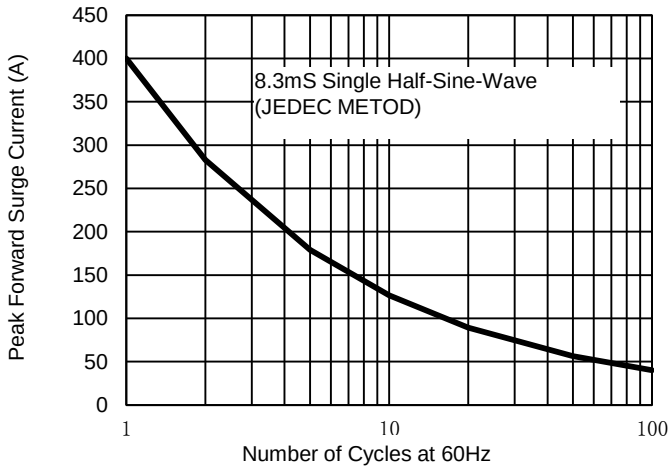


Fig. 3 - Typical Reverse Characteristics

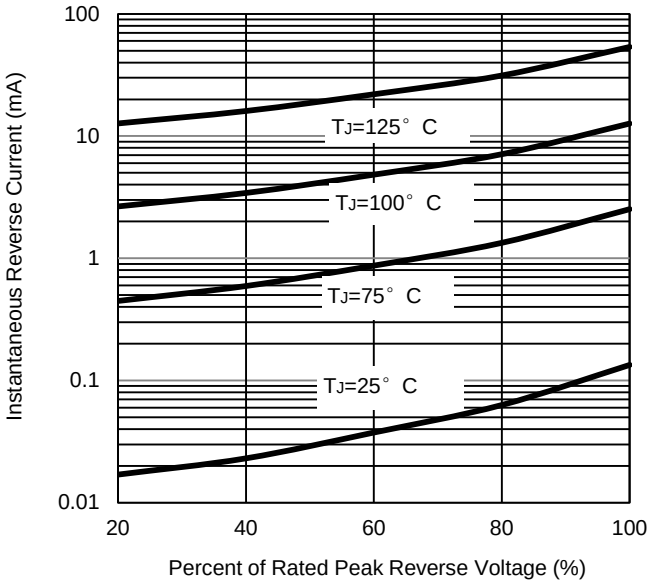
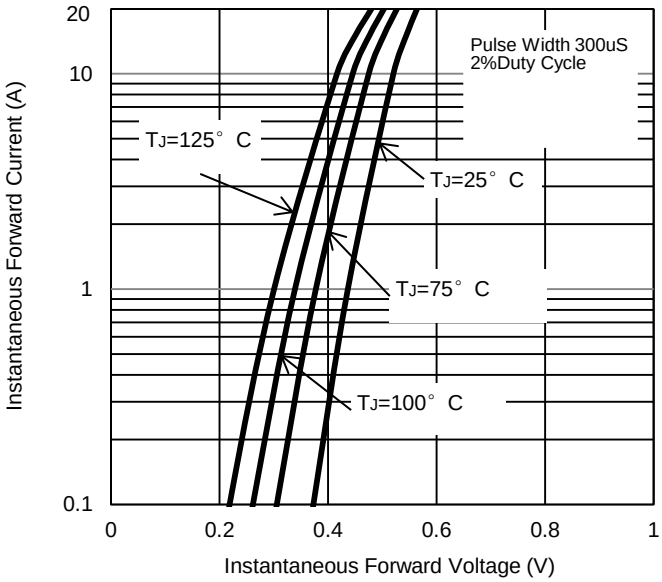


Fig. 4 - Typical Forward Characteristics



The curve above is for reference only.

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