



Photovoltaic Solar Cell Protection Schottky Diode

Reverse Voltage - 40 to 45 Volts
Forward Current - 10 Amperes

Features

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

Mechanical Data

- Case: JEDEC DO-27 molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

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

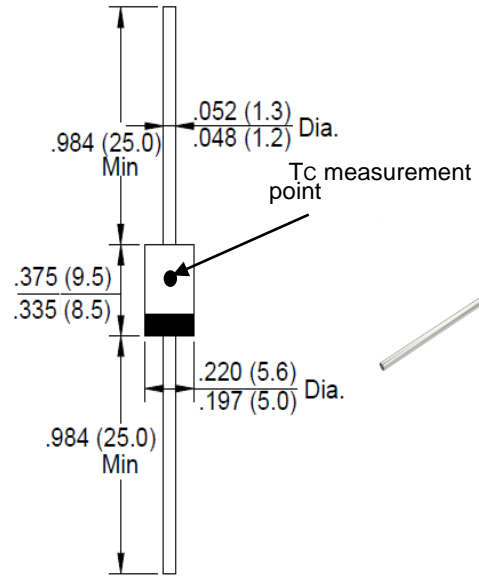
Applications

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

DO-27



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	SQ1040	SQ1045	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)	10		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 (Note1)	VF	0.55		V
Maximum DC Reverse Current @ Tj=25°C at Rated DC Blocking Voltage @ Tj=100°C	IR	0.5	50	mA
Typical Junction Capacitance (Note2)	CJ	450		pF
Typical Thermal Resistance Junction to Case	RθJC	3.0		°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. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

3. The typical data above is for reference only .

SQ10*-A-00-00/01
Rev. 11, 18-May-2020



Fig. 1 - Forward Current Derating Curve

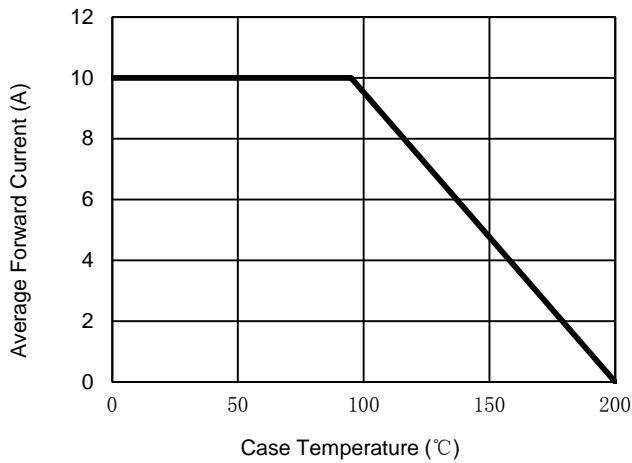


Fig. 2 - Maximum Non-Repetitive Surge Current

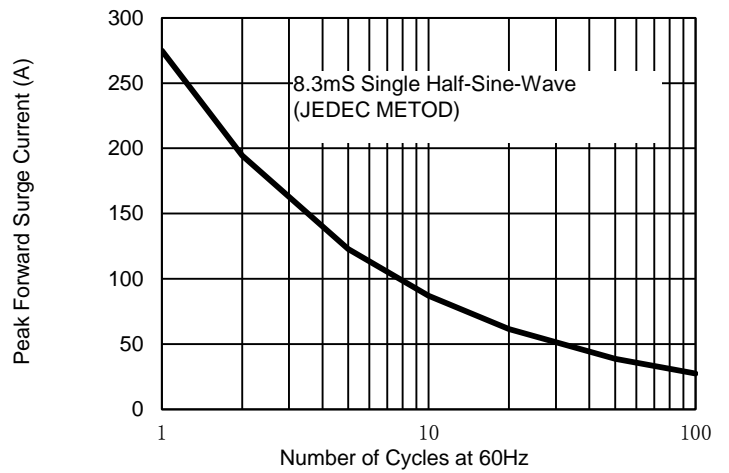


Fig. 3 - Typical Reverse Characteristics

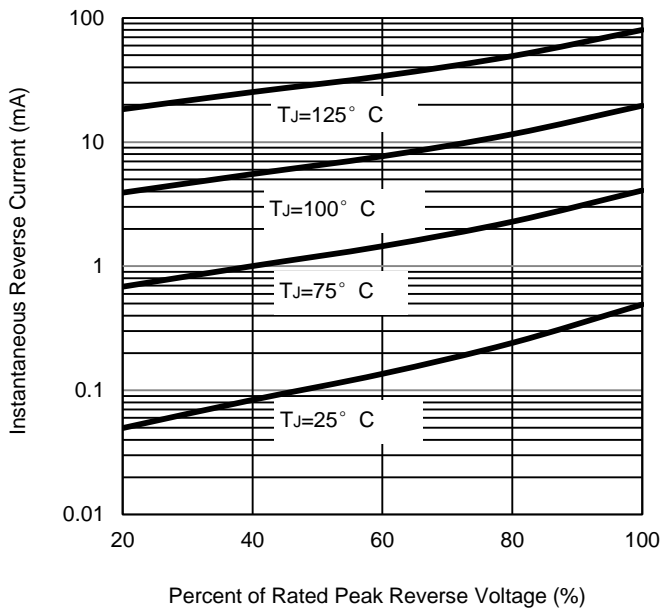


Fig. 4 - Typical Forward Characteristics

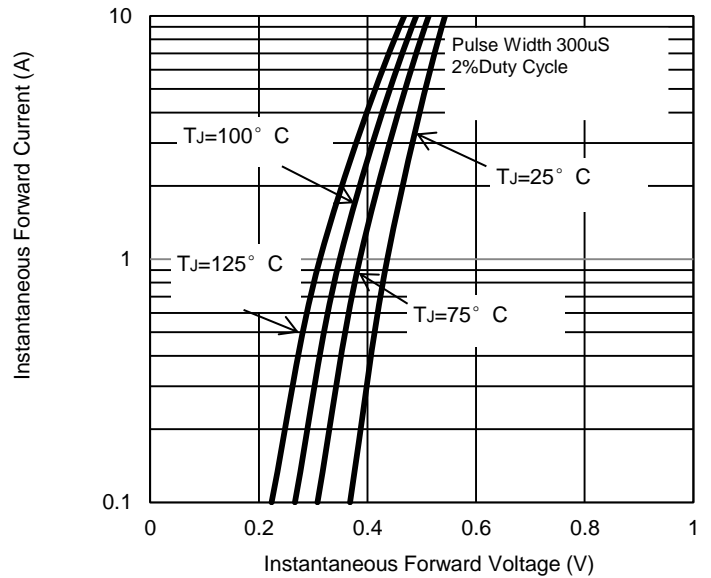
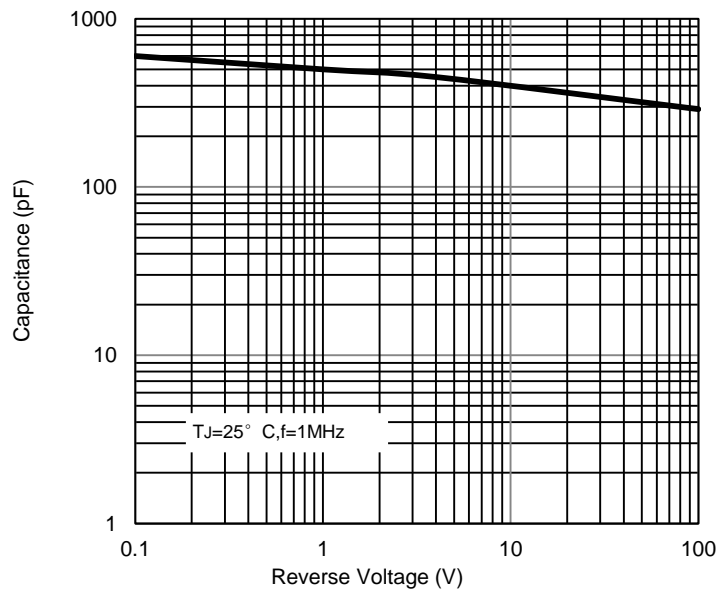


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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