



Photovoltaic Solar Cell Protection Schottky Diode

Reverse Voltage 80-100 Volts
Forward Current - 15.0 Amperes

Features

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

Mechanical Data

- Case: JEDEC R-6 molded plastic
- Polarity: Color band denotes cathode
- Mounting position: Any

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

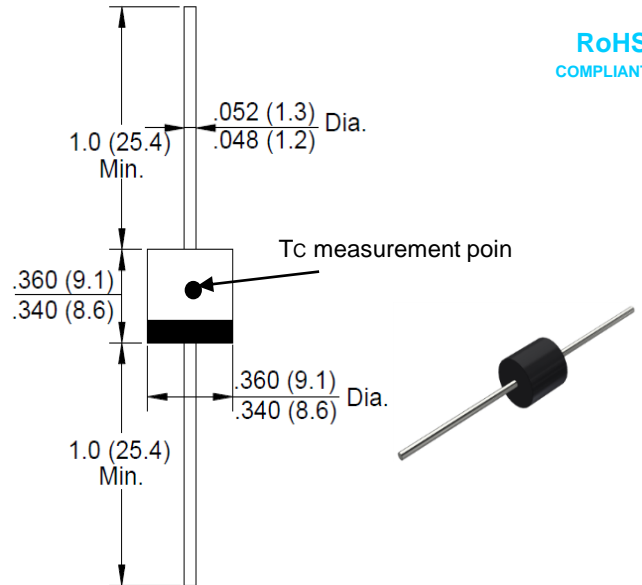
Applications

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

R-6



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	15SQ080	15SQ0100	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	80	100	V
Maximum RMS Voltage	V_{RMS}	56	70	V
Maximum DC Blocking Voltage	V_{DC}	80	100	V
Maximum Average Forward Rectified Current @ $T_c=95^\circ\text{C}$	$I_{(AV)}$	15		A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load (JEDEC Method)	I_{FSM}	350		A
Peak Forward Voltage at 15A DC (Note1)	V_F	0.7		V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_J=100^\circ\text{C}$	I_R	0.5 50		mA
Typical Junction Capacitance (Note2)	C_J	450		pF
Typical Thermal Resistance Junction to Case	$R_{\theta JC}$	3.5		$^\circ\text{C/W}$
Junction Temperature Range	T_J	-55 to +200		$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +200		$^\circ\text{C}$

- 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 .



Fig. 1 - Forward Current Derating Curve

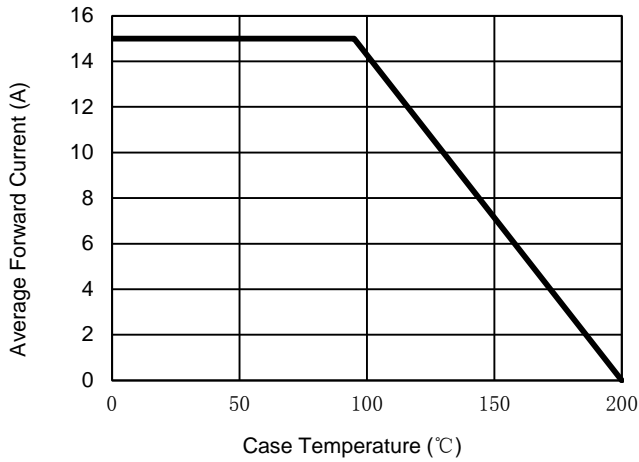


Fig. 2 - Maximum Non-Repetitive Surge Current

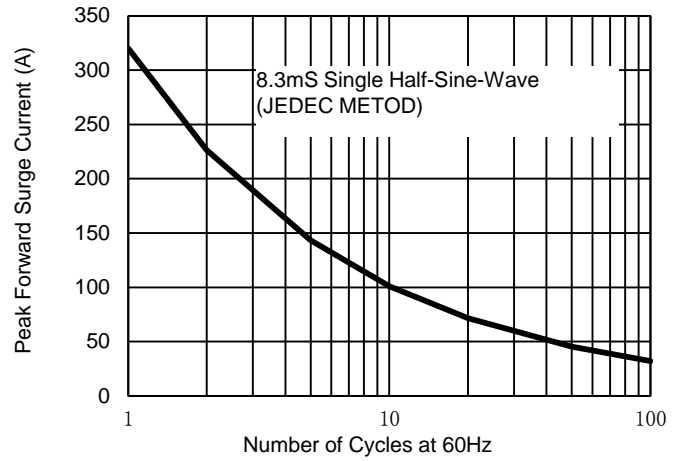


Fig. 3 - Typical Reverse Characteristics

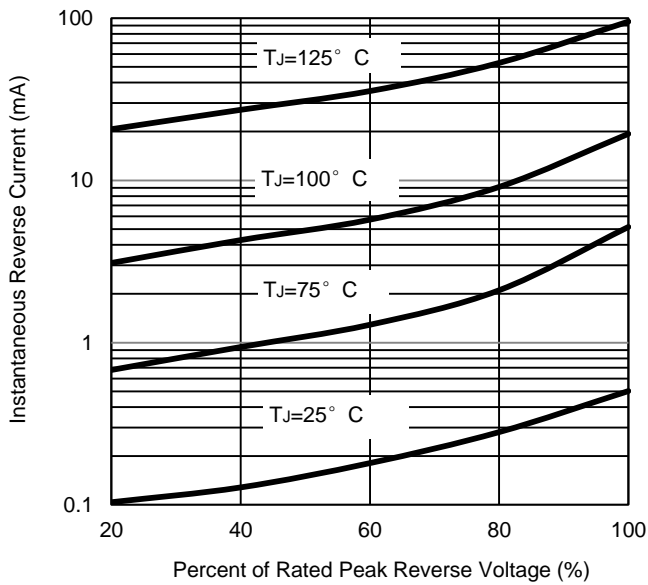


Fig. 4 - Typical Forward Characteristics

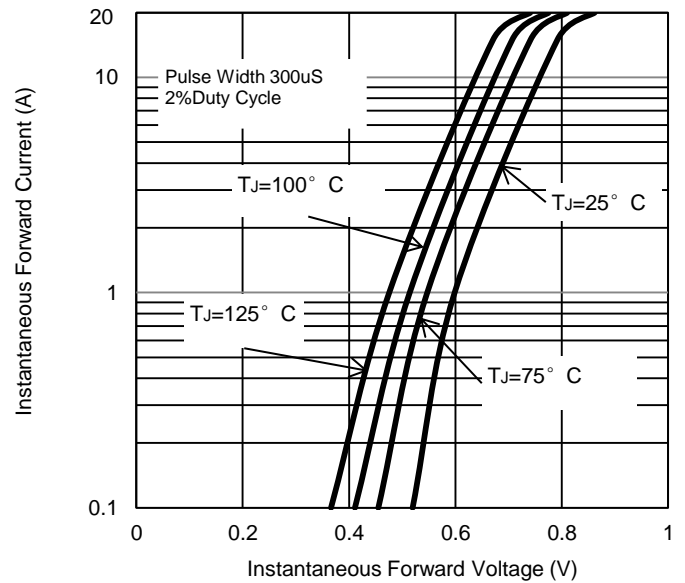
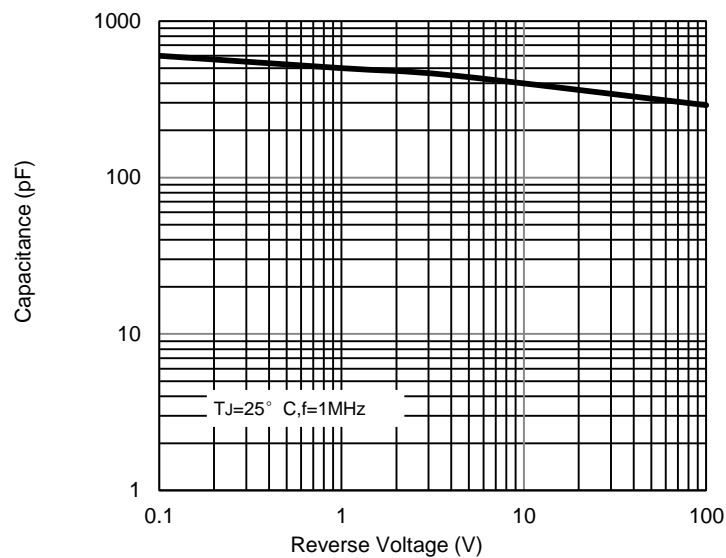


Fig. 5 - Typical Junction Capacitance



The curve above is for reference only.



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