
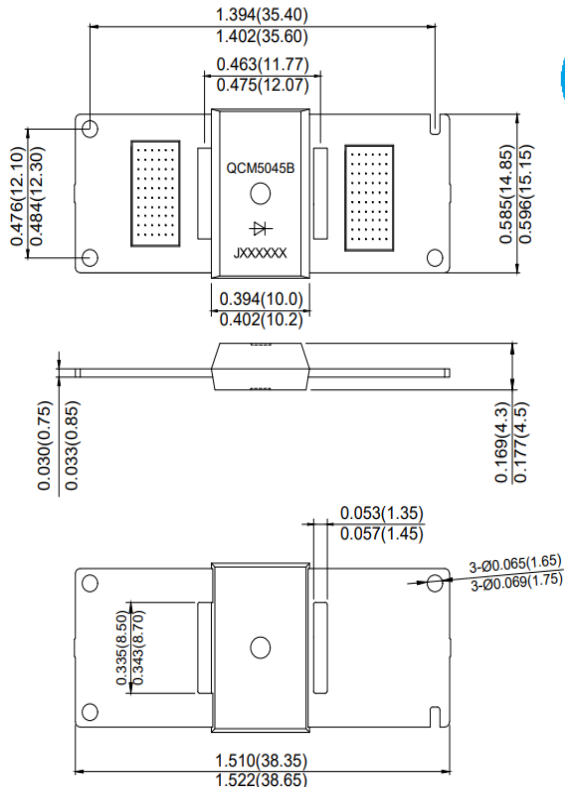




<h2>Photovoltaic Solar Cell Protection Schottky Diode</h2>	<h2>Bypass Diode Module For PV Forward Current - 40 Amperes</h2>
<h3>Features</h3> <ul style="list-style-type: none"> <li>● Low power loss, high efficiency</li> <li>● High surge current capability</li> <li>● Guardring for overvoltage protection</li> <li>● High temperature reverse characteristic is excellent</li> <li>● Trench Schottky Technology</li> <li>● Metal of silicon rectifier, majority carrier conduction</li> </ul> <h3>Mechanical Data</h3> <ul style="list-style-type: none"> <li>● Case:QC3Q, Molded plastic body Molding compound meets UL 94 V-0 flammability rating</li> <li>● Terminal: Mattle tin plated leads,solderable per JESD22-B102</li> <li>● Polarity: As marked on body</li> <li>● Weight: 4.86grams(approximately)</li> </ul> <h3>Typical Applications</h3> <ul style="list-style-type: none"> <li>● Photovoltaic solar cell protection</li> <li>● Switching power supplies, converters, freewheeling diodes, and reverse battery protection</li> </ul>	  <p>Package Outline Dimensions in Inches (Millimeters)</p>

## 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	SYM	QCM4045-150T1	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=125 °C	I(AV)	40	A
Peak Forward Surge Current, 8.3mS Single Half Sine-Wave, Superimposed on Rated Load ( JEDEC Method )	IFSM	400	A
Peak Forward Voltage at	25A DC (Note 1)	0.48	V
	40A DC (Note 1)	0.56	
Maximun DC Reverse Current at Rated DC Blocking Voltage	@TJ=25°C	0.1	mA
	@TJ=100°C	15	
Typical Thermal Resistance Junction to Case	RθJC	1.5	°C/W
Junction Temperature Range ( Note2 )	TJ	-55 to+200	°C
Storage Temperature Range	TSTG	-55 to+150	°C

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

2. Junction Temperature In DC forward current without reverse bias, ,t≤1 h (Fig.1). Meets the Requirements of IEC 61215 Ed. 2 bypass diode thermal test.

3. The typical data above is for reference only.

4. Products made by JUXIN semiconductor





## Rating and Characteristic Curves

Fig. 1 - Forward Current Derating Curve

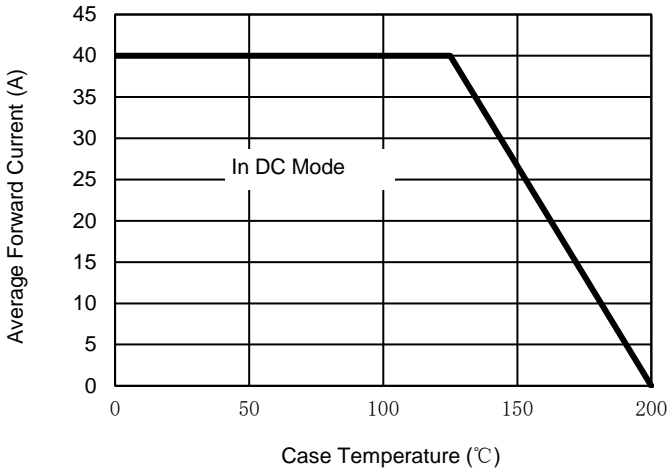


Fig. 2 - Maximum Non-Repetitive Surge Current

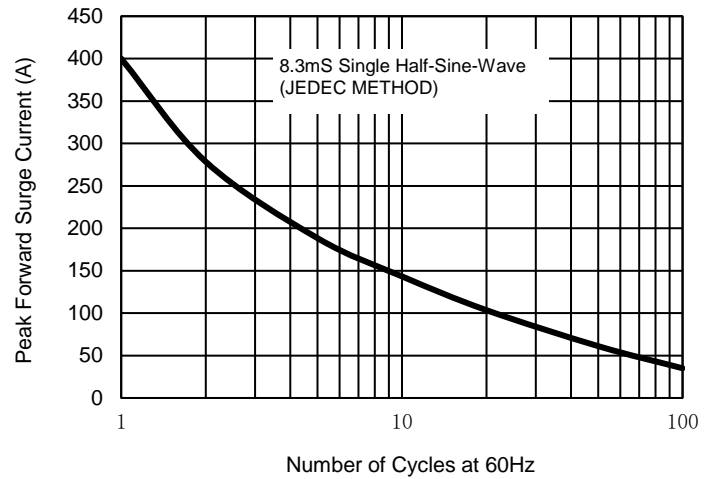


Fig. 3 - Typical Reverse Characteristics

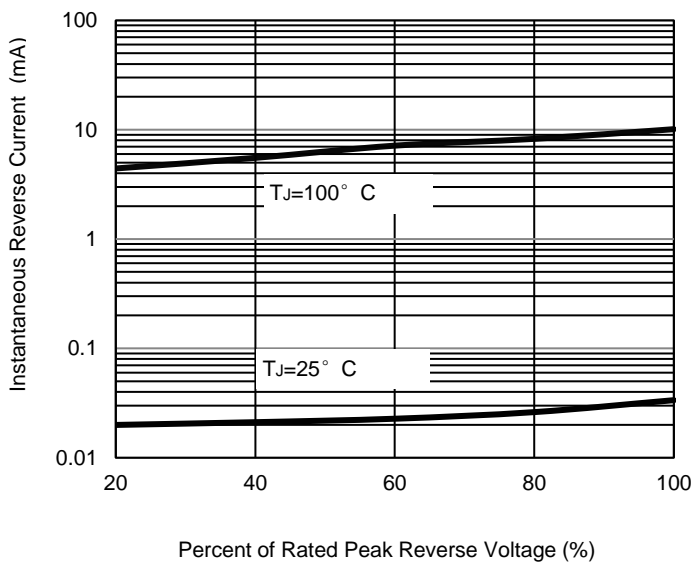
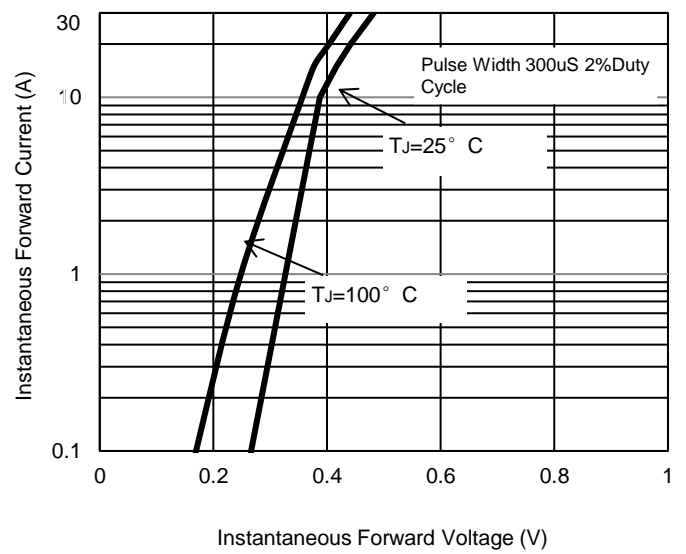


Fig. 4 - Typical Forward Characteristics



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