

220CMQ025 SCHOTTKY RECTIFIER

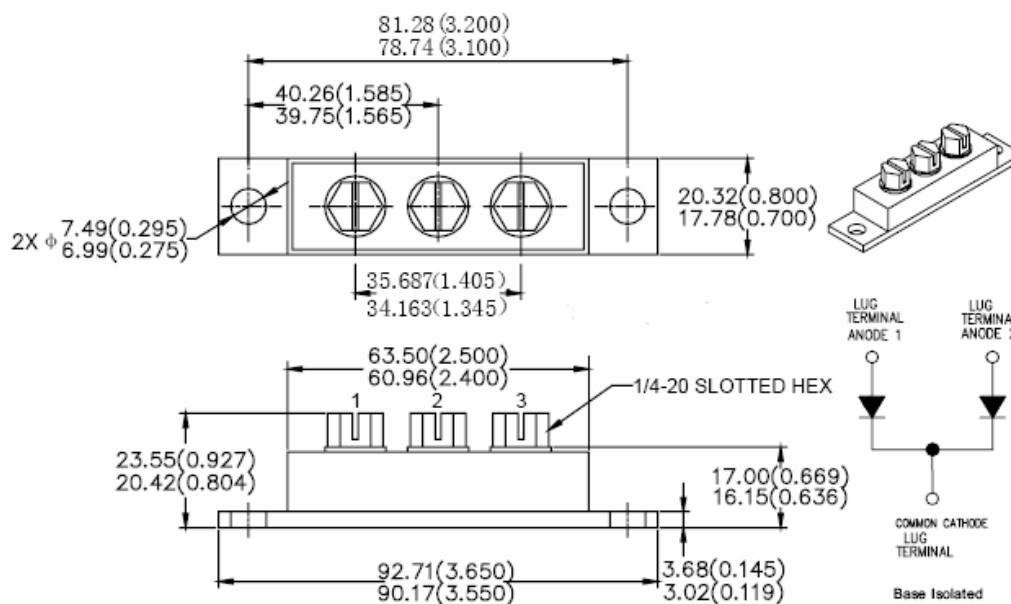
Applications:

- Parallel switching power supply • Free-Wheeling diodes • Reverse battery protection
- Converters • Redundant power subsystems

Features:

- 150°C T_J operation
- Center tap module
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions: In mm/Inches



Please Note: Anode 1 = Terminal 1; Anode 2 = Terminal 3; Common Cathode = Terminal 2
Suffix R Denotes for Reversed Polarity.

PRM4 (Isolated)

MARKING, MOLDING RESIN

Marking for 220CMQ025, 1st row SS YYWWL, 2nd row 220CMQ025

Where YY is the manufacture year

WW is the manufacture week code

L is the wafer's Lot Number

Molding resin

Epoxy resin UL:94V-0

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	25	V
Max. Average Forward	$I_{F(AV)}$	50% duty cycle @ $T_C = 74^\circ\text{C}$, rectangular wave form	110 220	per leg per device A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	2850	A

Electrical Characteristics:

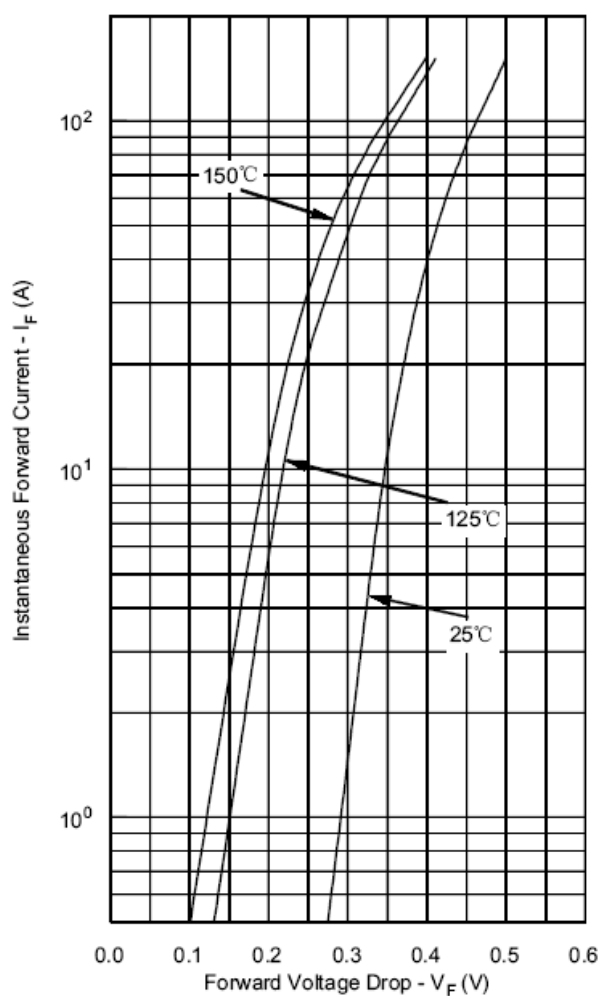
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 110A, Pulse, $T_J = 25^\circ\text{C}$	0.48	V
	V_{F2}	@ 110A, Pulse, $T_J = 125^\circ\text{C}$	0.40	V
Max. Reverse Current at DC condition	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	10	mA
Max. Reverse Current	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$	560	mA
Max. Junction Capacitance	C_T	@ $V_R = 5\text{V}$, $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	7400	pF
Typical Series Inductance (per leg)	L_S	Measured lead to lead 5 mm from package body	7.0	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/ μs

* Pulse Width < 300 μs , Duty Cycle < 2%

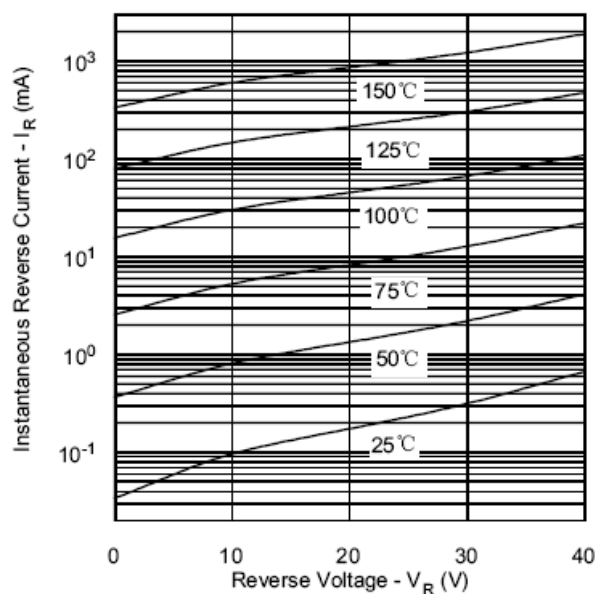
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	T_J	-	-55 to +150	$^\circ\text{C}$
Max. Storage Temperature	T_{stg}	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case (per leg)	$R_{\theta JC}$	DC operation	0.70	$^\circ\text{C/W}$
Maximum Thermal Resistance Junction to Case (per device)	$R_{\theta JC}$	DC operation	0.35	$^\circ\text{C/W}$
Typical Thermal Resistance, case to Heat Sink	$R_{\theta cs}$	Mounting surface, smooth and greased	0.10	$^\circ\text{C/W}$
Mounting Torque	T_M	-	Mounting Torque 24(min) 35(max) Terminal Torque 35(min) 46(max)	Kg-cm
Approximate Weight	wt	-	79	g
Case Style	PRM4 (Isolated)			

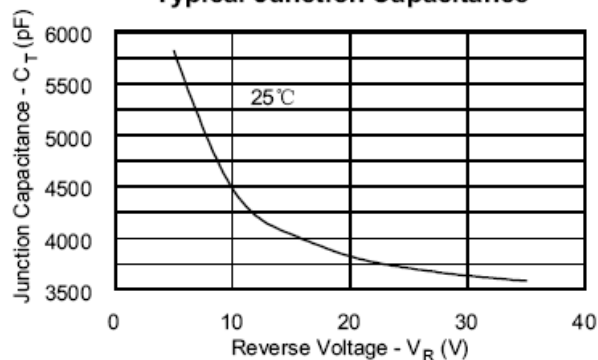
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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