



THE DATASHEET OF 225CNQ015



225CNQ015 SCHOTTKY RECTIFIER

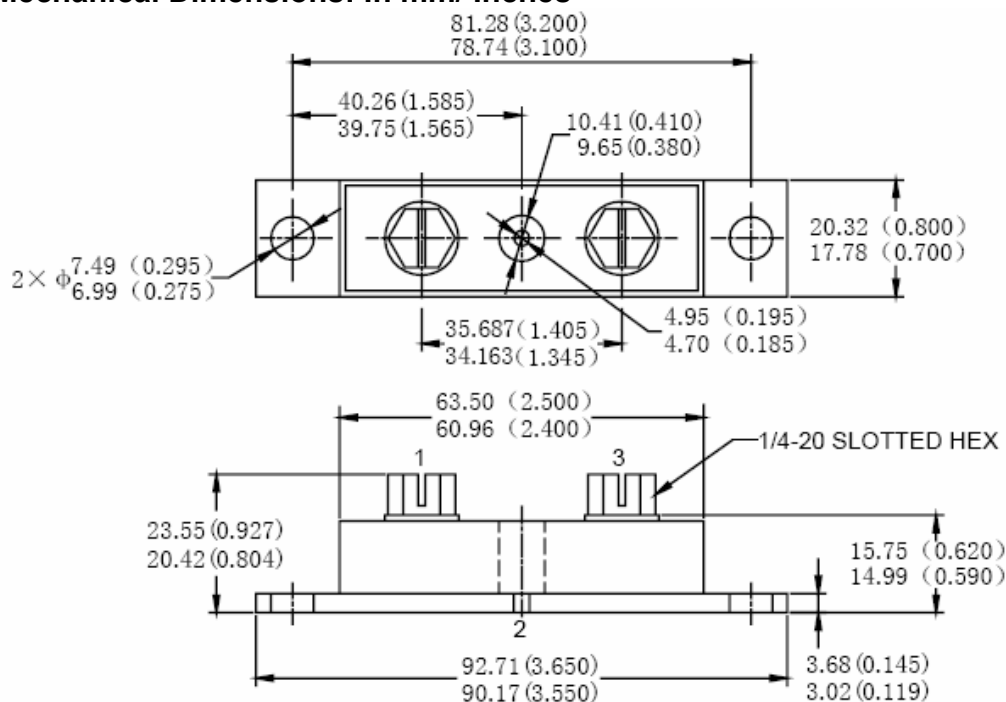
Applications:

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

Features:

- 125°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



PRM4 (Non-Isolated)

MARKING, MOLDING RESIN

Marking for 225CNQ015, 1st row SS YYWWL, 2nd row 225CNQ015

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

Technical Data
Data Sheet N1200, Rev. B
Maximum Ratings:
Green Products

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	15	V
Max. Average Forward Current	$I_{F(AV)}$	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	2040	A
Non-Repetitive Avalanche Energy(per leg)	E_{AS}	$T_J=25^\circ\text{C}$, $I_{AS}=2\text{A}$, $L=4.5\text{mH}$	9	mJ
Repetitive Avalanche Current(per leg)	I_{AR}	Current decaying linearly to zero in 1 μsec Frequency limited by T_J max. $V_A=1.5 \times V_R$ typical	2	A

Electrical Characteristics:

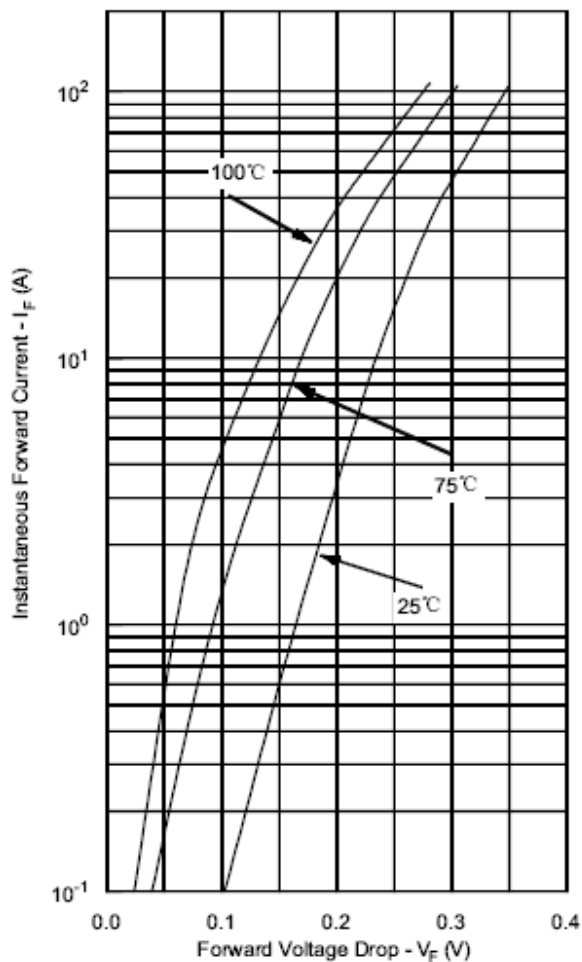
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 110A, Pulse, $T_J = 25^\circ\text{C}$ @ 220A, Pulse, $T_J = 25^\circ\text{C}$	0.38 0.49	V
	V_{F2}	@ 110A, Pulse, $T_J = 125^\circ\text{C}$ @ 220A, Pulse, $T_J = 125^\circ\text{C}$	0.32 0.42	V
Max. Reverse Current (per leg) *	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$	40	mA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$	2000	mA
	I_{R3}	@ $V_R = \text{rated } V_R$ $T_J = 100^\circ\text{C}$	1780	mA
	I_{R4}	@ $V_R = \text{rated } V_R$ $T_J = 100^\circ\text{C}$	1080	mA
Max. Junction Capacitance	C_T	@ $V_R = 5\text{V}$, $T_C = 25^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	7700	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%

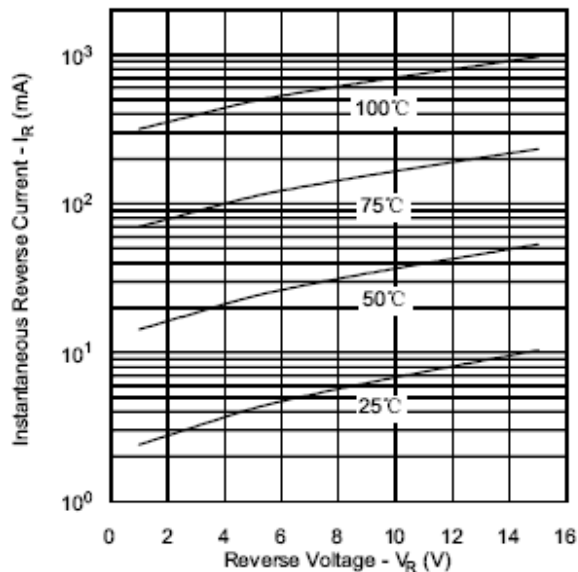
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units	
Max. Junction Temperature	T_J	-	-55 to +125	$^\circ\text{C}$	
Max. Storage Temperature	T_{stg}	-	-55 to +125	$^\circ\text{C}$	
Maximum Thermal Resistance Junction to Case (per leg)	$R_{\theta JC}$	DC operation	0.50	$^\circ\text{C/W}$	
Maximum Thermal Resistance Junction to Case (per device)	$R_{\theta JC}$	DC operation	0.25	$^\circ\text{C/W}$	
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)	Kg-cm
			Terminal Torque	35(min) 46(max)	
Approximate Weight	wt	-	79	g	
Case Style	PRM4 (Non-Isolated)				

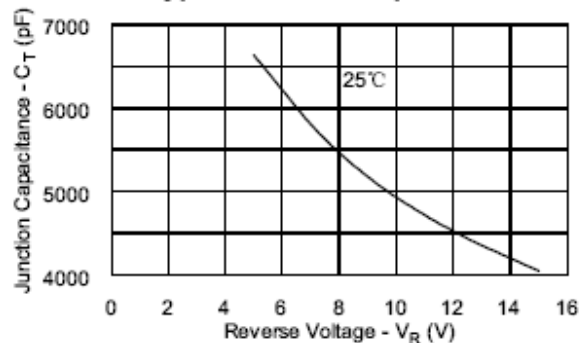
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance





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