





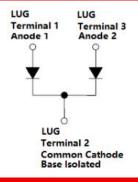
201CMQ035/201CMQ040/201CMQ045/201CMQ050 SCHOTTKY RECTIFIER



Features

- 175°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
- Baseplate: Nickel plated; Terminals: Nickel plated
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Applications

- · High current switching power supply
- Plating power supply
- Free-Wheeling diodes
- Reverse battery protection
- Converters
- UPS System
- Welding

Maximum Ratings:

Characteristics	Symbol	Condition	Max.		Units
Dook Bonetitive Boverse Voltage	\/	-	35	201CMQ035	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R		40	201CMQ040	V
			45	201CMQ045	
			50	201CMQ050	
Average Rectified Forward Current	I _{F(AV)}	50% duty cycle @T _C =121°C,	100(Per Leg)		А
		rectangular wave form	200(Per Device)		
Peak One Cycle Non-Repetitive Surge Current (Per Leg)	I _{FSM}	8.3 ms, half Sine pulse	3840		Α
Non-Repetitive Avalanche Energy(Peg Leg)	Eas	T _J =25℃,I _{AS} =20A,L=0.67mH	135		mJ
Repetitive Avalanche Current (Peg Leg)	I _{AR}	Current decaying linearly to zero in 1 μsec Frequency limited by T _J max. V _A =1.5×V _R typical	20		А

- China Germany Korea Singapore United States
 - http://www.smc-diodes.com sales@ smc-diodes.com •









Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop(Per Leg)*	V _{F1}	@ 100A, Pulse, T _J = 25 °C @ 200A, Pulse, T _J = 25 °C	0.56 0.67	0.67 0.81	V
	V_{F2}	@ 100A, Pulse, T _J = 125 °C @ 200A, Pulse, T _J = 125 °C	0.50 0.60	0.58 0.71	V
Reverse Current(Per Leg)*	I _{R1}	$@V_R = \text{rated } V_{R,} T_J = 25 ^{\circ}\text{C}$	0.06	10	mA
	I _{R2}	$@V_R = \text{rated } V_{R_i} T_J = 125 ^{\circ}\text{C}$	6	90	mA
Junction Capacitance(Per leg)	Ст	$@V_R = 5V, T_C = 25 °C$ $f_{SIG} = 1MHz$	4400	5200	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

^{*} Pulse width < 300 µs, duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specific	Units	
Junction Temperature	TJ	-	-55 to +175		°C
Storage Temperature	T _{stg}	-	-55 to +175		°C
Typical Thermal Resistance Junction to Case(Per leg)	$R_{ heta JC}$	DC operation	0.70		°C/W
Typical Thermal Resistance Junction to Case(Per package)	$R_{ heta JC}$	DC operation	0.35		°C/W
Typical Thermal Resistance, case to Heat Sink	$R_{ heta cs}$	Mounting surface, smooth and greased	0.10		°C/W
Mounting Torque	ТМ	-	Mounting Torque	24(min) 35(max)	- Kg-cm
			Terminal Torque	35(min) 46(max)	
Approximate Weight	wt	-	79		g
Case Style	PRM4 Isolated				

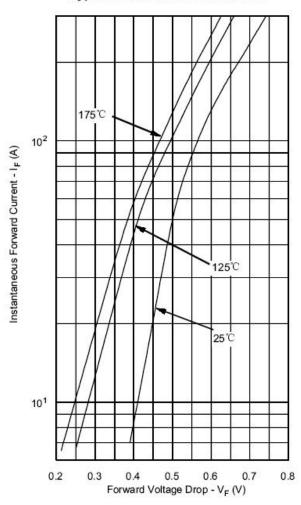




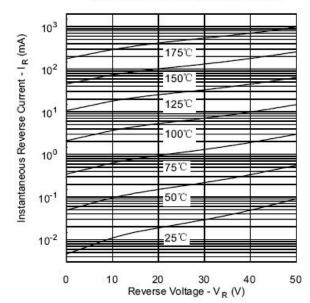


Ratings and Characteristics Curves

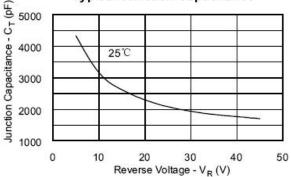
Typical Forward Characteristics



Typical Reverse Characteristics







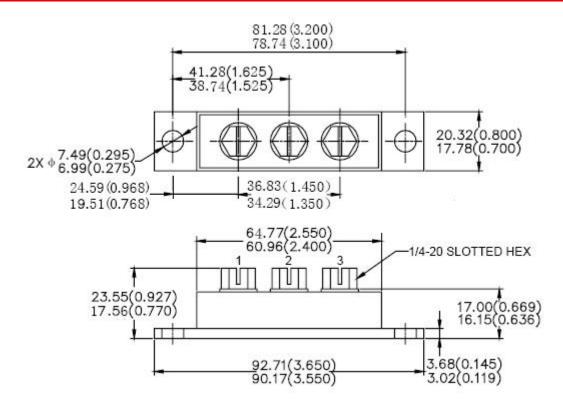




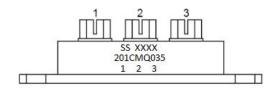




Mechanical Dimensions PRM4 Isolated(Millimeters/Inches)



Marking Diagram



Where XXXX is YYWW

201CMQ035 = Part name SS = SS YY = Year WW = Week

Cautions: Molding resin

Epoxy resin UL:94V-0

Ordering Information

Device	Package	Shipping	
201CMQ SERIES	PRM4 Isolated (Pb-Free)	9 pcs/box	

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.









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