





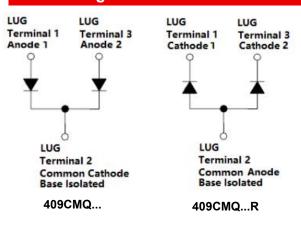
409CMQ135/R 409CMQ150/R SCHOTTKY RECTIFIER



Features

- 175℃ 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
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage	V _{RRM} V _{RWM}	-	135	409CMQ135/R	V
DC Blocking Voltage	V RWM V _R		150	409CMQ150/R	V
Average Rectified Forward Current	I _{F(AV)}	50% duty cycle @T _C =105°C, rectangular wave form		200(Per Leg)	Α
•	` ′	Tectangular wave form	4	00(Per Device)	
Peak One Cycle Non-Repetitive Surge Current (Per Leg)	I _{FSM}	8.3 ms, half Sine pulse	2760		Α

- 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}	@ 200A, Pulse, T _J = 25 °C @ 400A, Pulse, T _J = 25 °C	0.91 1.10	1.03 1.21	V
	V _{F2}	@ 200A, Pulse, T _J = 125 °C @ 400A, Pulse, T _J = 125 °C	0.68 0.80	0.72 0.83	٧
Reverse Current(Per Leg)*	I _{R1}	$@V_R = \text{rated } V_{R_1} T_J = 25 ^{\circ}\text{C}$	0.05	6	mA
	I _{R2}	$@V_R = \text{rated } V_{R,} T_J = 125 ^{\circ}\text{C}$	50	85	mA
Junction Capacitance(Per leg)	Ст	$@V_R = 5V, T_C = 25 °C$ $f_{SIG} = 1MHz$	5500	6000	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs
Isolation Voltage	V _{ISO}	Tracer to 1500V, measuring whether conducting base plate and the center column	-	1500	V

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

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specific	Units	
Junction Temperature	TJ	-	-55 to +150		°C
Storage Temperature	T _{stg}	-	-55 to +150		°C
Typical Thermal Resistance Junction to Case(Per leg)	R ₀ JC	DC operation	0.40		°C/W
Typical Thermal Resistance Junction to Case(Per package)	R _θ Jc	DC operation	0.20		°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

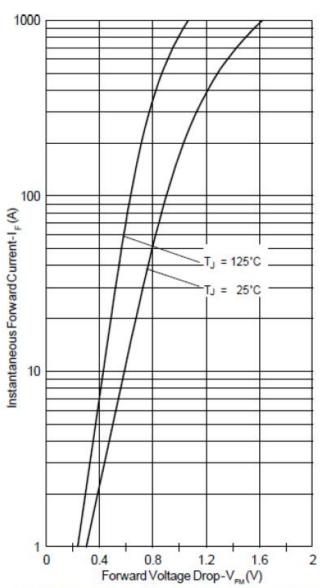


Fig. 1 - Max. Forward Voltage Drop Characteristics

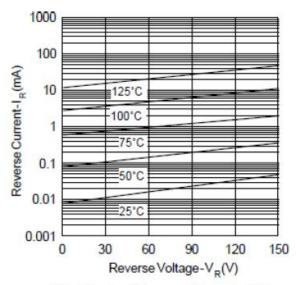


Fig.2-Typical Reverse Characteristics

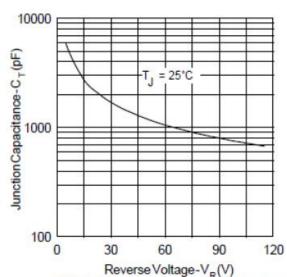


Fig. 3-Typical Junction Capacitance Vs. Reverse Voltage

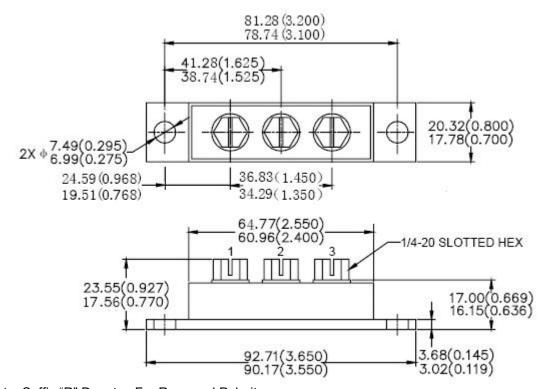






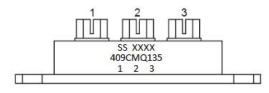


Mechanical Dimensions PRM4 Isolated(Millimeters/Inches)



Please Note: Suffix "R" Denotes For Reversed Polarity

Marking Diagram



Where XXXX is YYWW

409CMQ135 = Part name SS = SS YY = Year WW = Week

Cautions: Molding resin

Epoxy resin UL:94V-0

Ordering Information

Device	Package	Shipping	
409CMQ 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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