

Technical Data Green Products

Data Sheet N1009, Rev. C

209CMQ135/209CMQ150 SCHOTTKY RECTIFIER

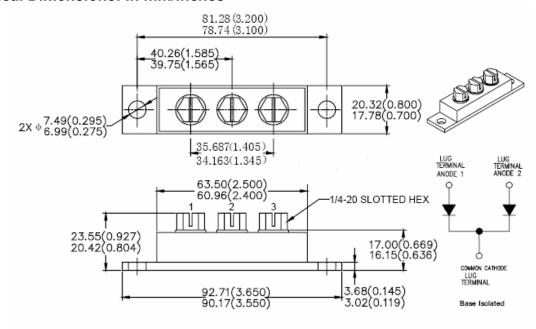
Applications:

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

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
- 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 209CMQ135/150, 1st row SS YYWWL, 2nd row 209CMQ135/150 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

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Maximum Ratings:

Characteristics	Symbol	Condition	Max.		Units
Peak Inverse Voltage	V_{RWM}	-	135(209CMQ135) 150(209CMQ150)		V
Max. Average Forward	l _e (n) o	50% duty cycle @T _C =110°C,	100	per leg	Α
Current	I _{F(AV)}	rectangular wave form	200	per device	ζ
Max. Peak One Cycle Non- Repetitive Surge Current (per leg)	I _{FSM}	8.3 ms, half Sine pulse	1440		А

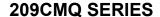
Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 100A, Pulse, T _J = 25 °C	1.03	V
(per leg) *		@ 200A, Pulse, T _J = 25 °C	1.22	
	V_{F2}	@ 100A, Pulse, T _J = 125 °C	0.71	V
		@ 200A, Pulse, T _J = 125 °C	0.82	
Max. Reverse Current at DC	1	$@V_R = rated V_R$	3	mA
condition	I _{R1}	$T_J = 25 ^{\circ}C$	3	ША
Max. Reverse Current	1.	$@V_R = rated V_R$	45	mA
	I _{R2}	T _J = 125 °C	40	ША
Max. Junction Capacitance	C _⊤	$@V_R = 5V, T_C = 25 ^{\circ}C$	3000	pF
		$f_{SIG} = 1MHz$	3000	РΙ
Max. Voltage Rate of	dv/dt	-	10,000	V/µs
Change(Rated V _R)	uv/ut		10,000	ν/μδ

^{*} Pulse Width < 300µs, Duty Cycle <2%

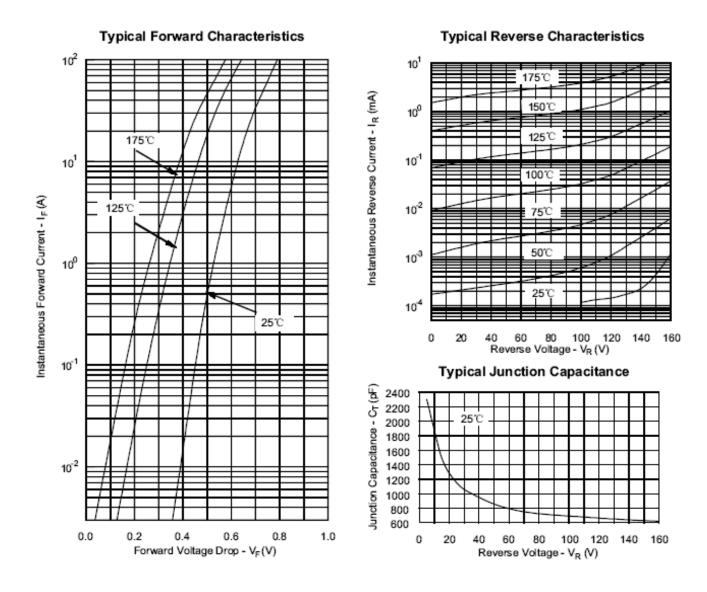
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specifi	Units		
Max. Junction Temperature	T_J	-	-55 to	°C		
Max. Storage Temperature	T _{stg}	-	-55 to	°C		
Maximum Thermal Resistance Junction to Case (per leg)	$R_{ heta JC}$	DC operation	0.7		°C/W	
Maximum Thermal Resistance Junction to Case (per device)	$R_{ heta JC}$	DC operation	0.35		°C/W	
Typical Thermal Resistance, case to Heat Sink	$R_{\theta cs}$	Mounting surface, smooth and greased	0.10		°C/W	
Mounting Torque	Тм	-	Mounting Torque Terminal Torque	24(min) 35(max) 35(min) 46(max)	Kg-cm	
Approximate Weight	wt	-	79		g	
Case Style	PRM4 (Isolated)					





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209CMQ SERIES

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