



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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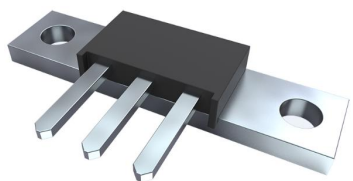
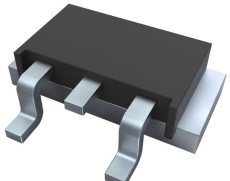
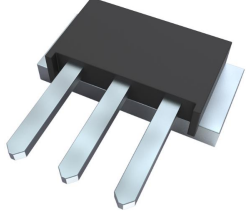
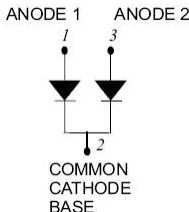
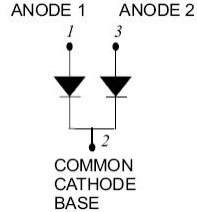
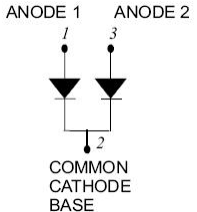
89CNQ135/89CNQ150 SCHOTTKY RECTIFIER

Applications

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Features

- 175°C T_J operation
- Ultra low reverse leakage current
- Soft reverse recovery at low and high temperature
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capacity
- Guard ring for enhanced ruggedness and long term reliability
- Guaranteed reverse avalanche characteristics
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional electrical and life testing can be performed upon request

89CNQ...	89CNQ...SL	89CNQ...SM
		
		
PRM2	PRM2-SL	PRM2-SM

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage	V_{RRM}		135(89CNQ135)	V
Working Peak Reverse Voltage	V_{RWM}	-	150(89CNQ150)	V
DC Blocking Voltage	V_R			
Average Rectified Forward Current	$I_F (AV)$	50% duty cycle @T _C =132°C, rectangular wave form	40(Per Leg)	A
Peak One Cycle Non-Repetitive Surge Current(Per leg)	I_{FSM}	8.3 ms, half Sine pulse	708	A

Electrical Characteristics:

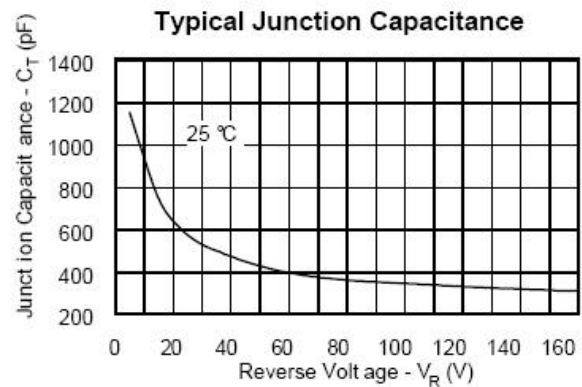
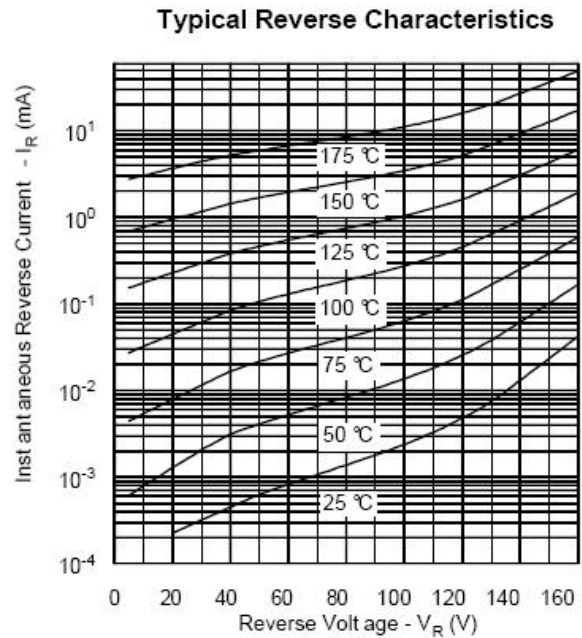
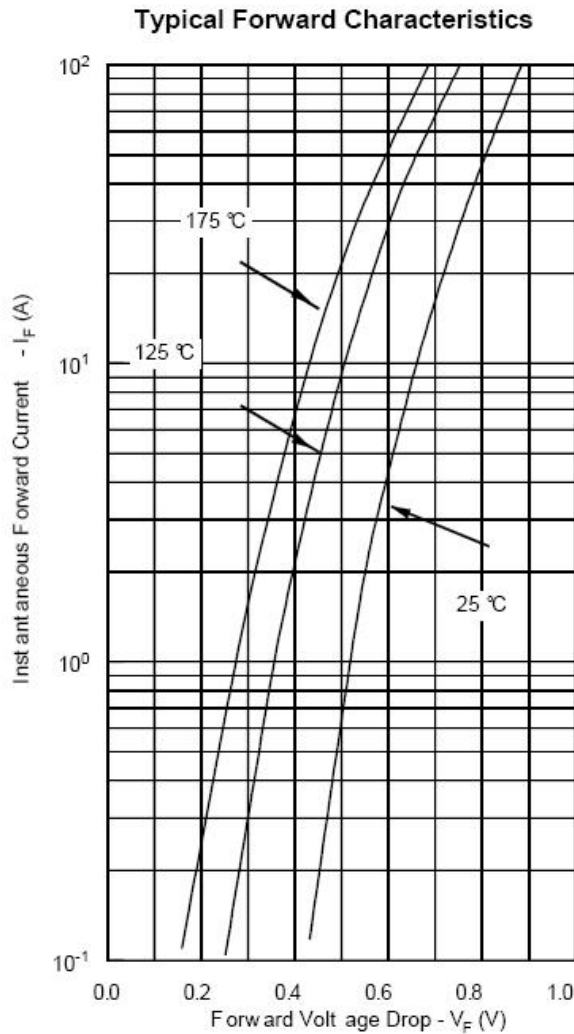
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop (Per leg) *	V _{F1}	@ 40A, Pulse, T _J = 25 °C	0.82	0.99	V
		@ 80A, Pulse, T _J = 25 °C	0.88	1.14	
	V _{F2}	@ 40A, Pulse, T _J = 125 °C	0.62	0.69	V
		@ 80A, Pulse, T _J = 125 °C	0.72	0.78	
Reverse Current (Per leg) *	I _{R1}	@V _R = rated VR T _J = 25 °C	0.02	1.5	mA
	I _{R2}	@V _R = rated VR T _J = 125 °C	4	21	mA
Junction Capacitance (Per leg)	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz, VSIG=50mV(p-p)	1200	1400	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

* Pulse width < 300 μs, duty cycle < 2%

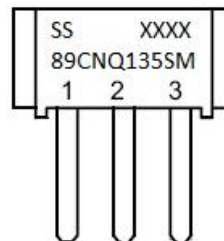
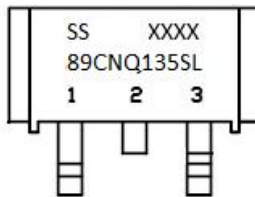
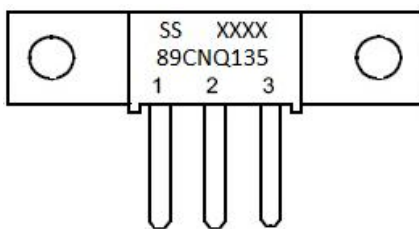
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T _J	-	-55 to +175	°C
Storage Temperature	T _{stg}	-	-55 to +175	°C
Typical Thermal Resistance Junction to Case (per leg)	R _{θJC}	DC operation	0.85	°C/W
Typical Thermal Resistance Junction to Case (per package)	R _{θJC}	DC operation	0.42	°C/W
Typical Thermal Resistance, case to Heat Sink	R _{θcs}	Mounting surface, smooth and greased	0.30	°C/W
Mounting Torque	T _M	-	40(min)	Kg-cm
			58(max)	
Approximate Weight	wt	-	7.8	g
Case Style	PRM2 PRM2-SL PRM2-SM			

Ratings and Characteristics Curves



Marking Diagram



Where XXXX is YYWW

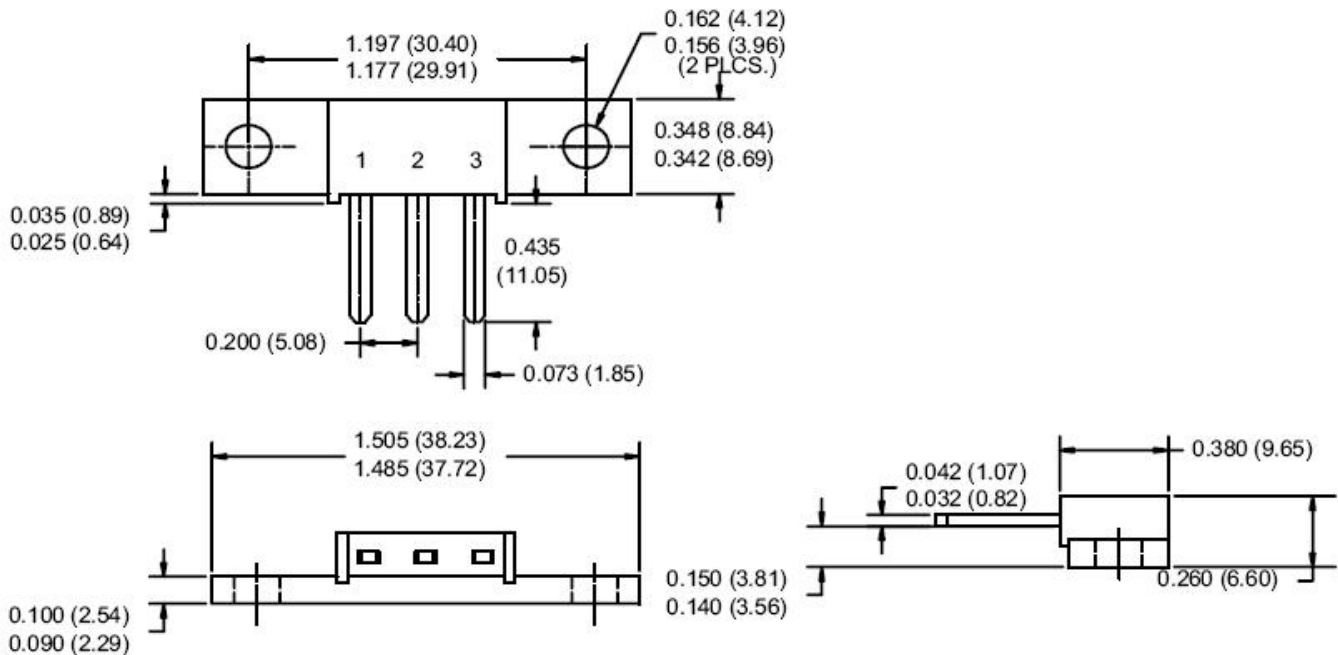
1st row SS YYWWL
 2nd row 89CNQ135/SL/SM
 3rd row 1 2 3 (pin)
 SS = SS
 YY = Year
 WW = Week

Cautions: Molding resin
 Epoxy resin UL:94V-0

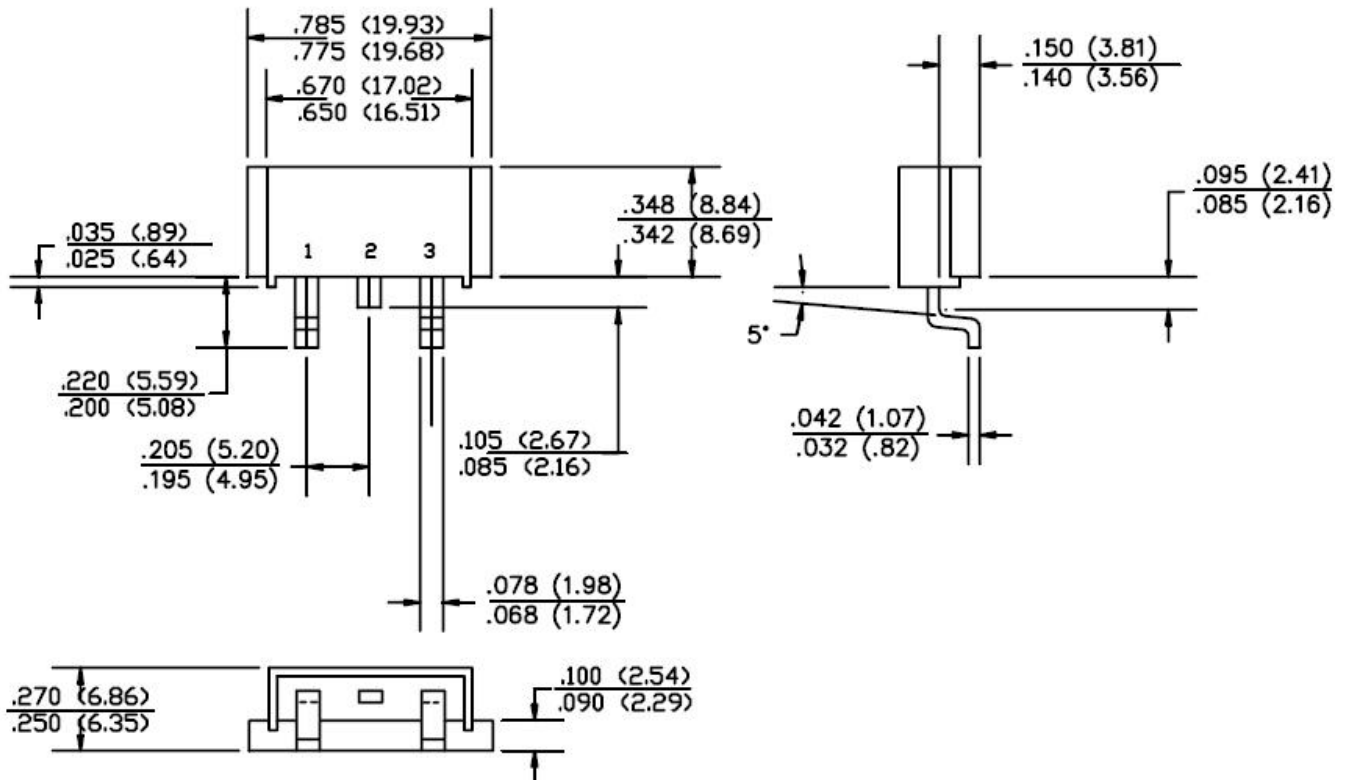
Ordering Information

Device	Package	Terminals finish	Shipping
89CNQ135	PRM2	Nickel plated	48pcs / box
89CNQ135S	PRM2	Pure Sn dipped (dipped height 6-8 mm)	48pcs / box
89CNQ135SL	PRM2-SL	Pure Sn plated	100pcs / box
89CNQ135SM	PRM2-SM	Nickel plated	48pcs / box
89CNQ135SMS	PRM2-SM	Pure Sn dipped (dipped height 6-8 mm)	48pcs / box
89CNQ150	PRM2	Nickel plated	48pcs / box
89CNQ150S	PRM2	Pure Sn dipped (dipped height 6-8 mm)	48pcs / box
89CNQ150SL	PRM2-SL	Pure Sn plated	100pcs / box
89CNQ150SM	PRM2-SM	Nickel plated	48pcs / box
89CNQ150SMS	PRM2-SM	Pure Sn dipped (dipped height 6-8 mm)	48pcs / box

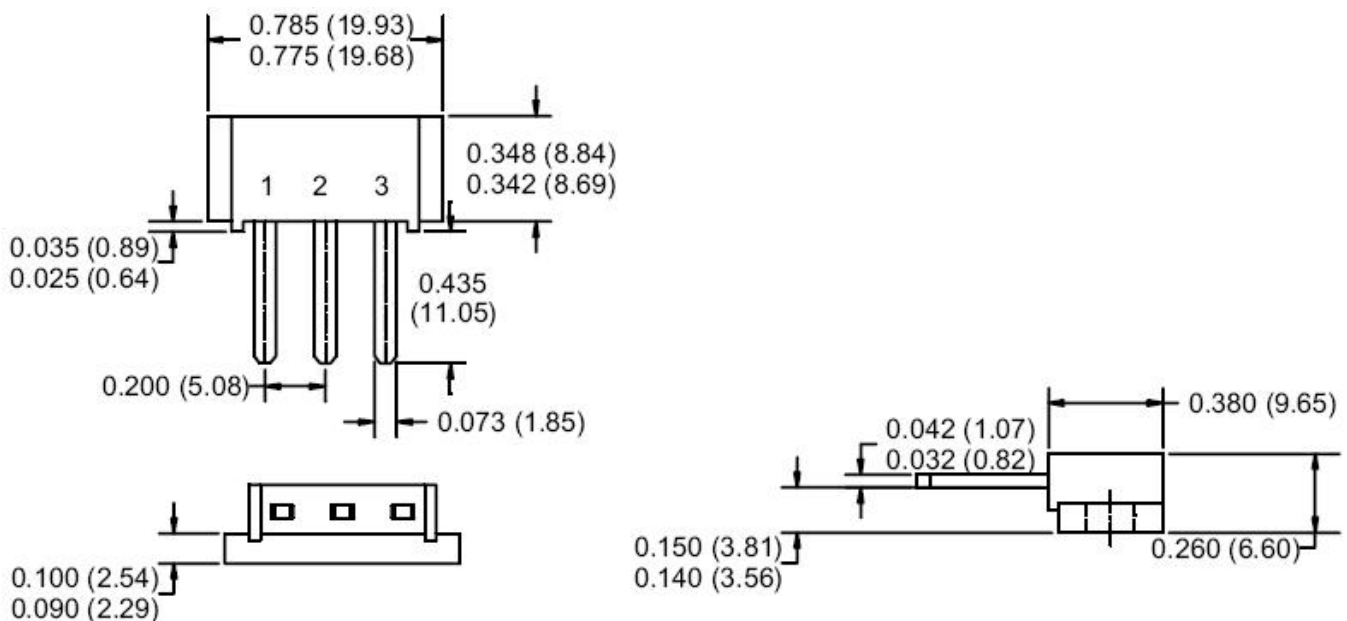
Mechanical Dimensions PRM2 (Inches/Millimeters)



Mechanical Dimensions PRM2-SL (Inches/Millimeters)



Mechanical Dimensions PRM2-SM (Inches/Millimeters)





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