

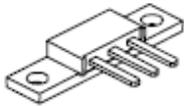
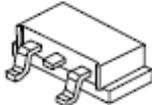
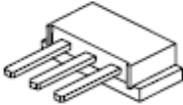
88CNQ060 SCHOTTKY RECTIFIER

Applications:

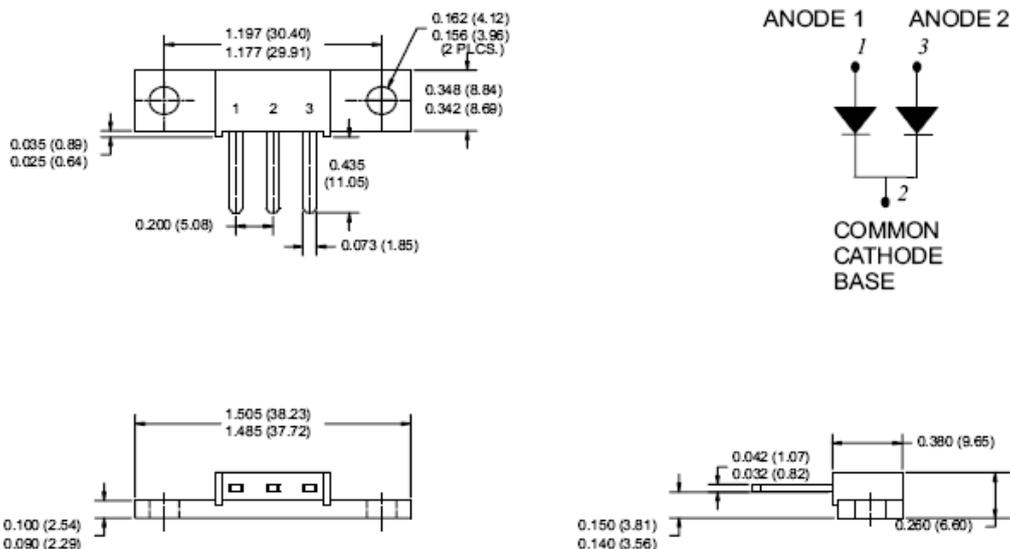
- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Features:

- 175°C T_J operation
- Center tap module
- Very Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Low profile, high current package
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

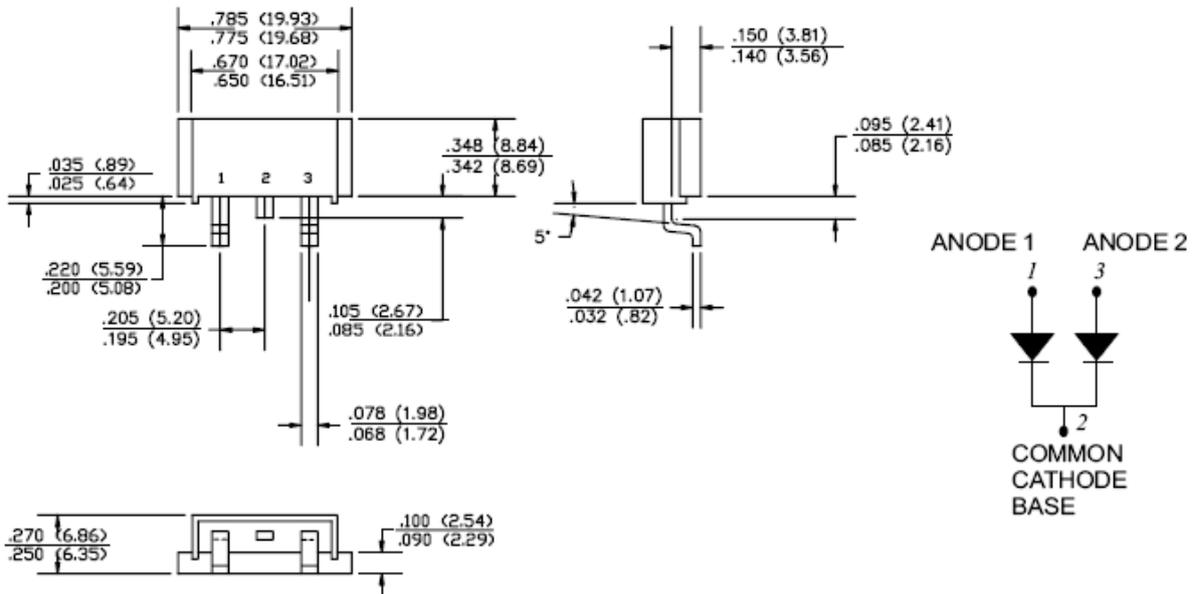
Case Styles		
88CNQ060  PRM2	88CNQ060SL  PRM2-SL	88CNQ060SM  PRM2-SM

Mechanical Dimensions: In Inches / mm

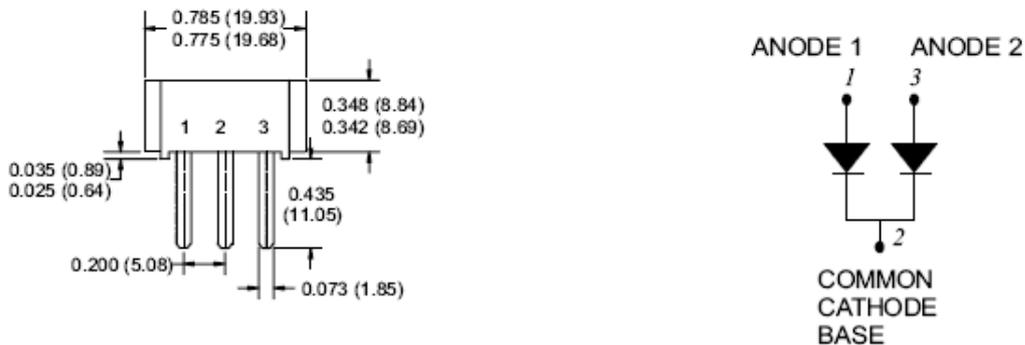


PRM2

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



PRM2-SL



PRM2-SM

MARKING, MOLDING RESIN

Marking for 88CNQ060/SL/SM, 1st row SS YYWWL, 2nd row 88CNQ060/SL/SM, 3rd row 1 2 3 (pin)

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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88CNQ060

Technical Data
Data Sheet N1154, Rev. -

Green Products

Ordering Information:

Device	Package	Terminals finish	Shipping
88CNQ060	PRM2	Nickel plated	48pcs / box
88CNQ060S	PRM2	Pure Sn dipped (dipped height 6-8 mm)	48pcs / box
88CNQ060SL	PRM2-SL	Pure Sn plated	100pcs / box
88CNQ060SM	PRM2-SM	Nickel plated	48pcs / box
88CNQ060SMS	PRM2-SM	Pure Sn dipped (dipped height 6-8 mm)	48pcs / box

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	60	V
Average Rectified Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 95^\circ C$, rectangular wave form	80	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	720	A
Non-Repetitive Avalanche Energy(peg leg)	E_{AS}	$T_J = 25^\circ C, I_{AS} = 1A, L = 0.57mH$	75	mJ
Repetitive Avalanche Current(peg leg)	I_{AR}	Current decaying linearly to zero in 1 μsec Frequency limited by T_J max. $V_A = 1.5 \times V_R$ typical	1	A

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Electrical Characteristics:

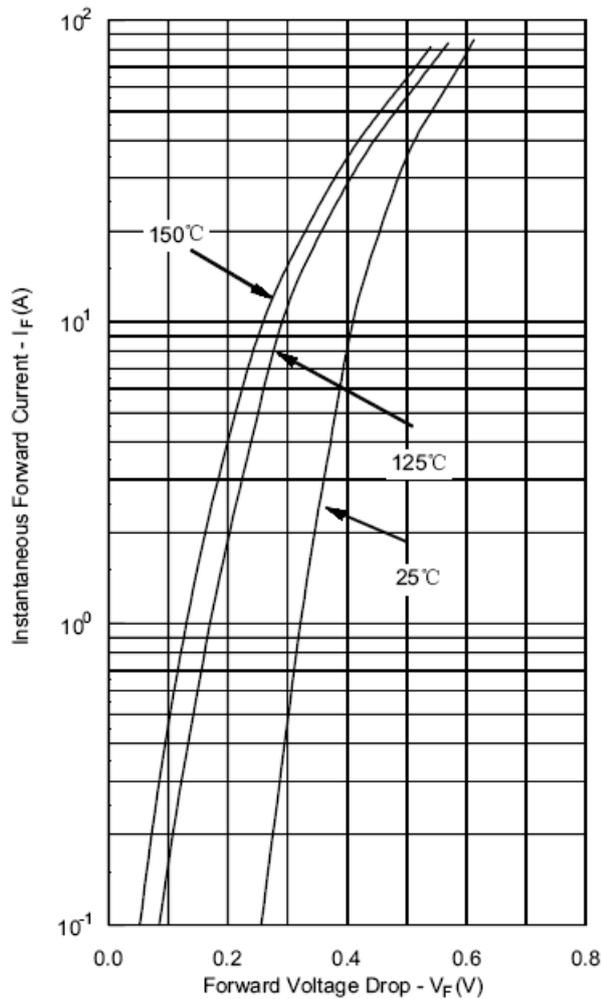
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop (per leg) *	V _{F1}	@ 40A, Pulse, T _J = 25 °C @ 80A, Pulse, T _J = 25 °C	0.45 0.60	0.58 0.77	V
	V _{F2}	@ 40A, Pulse, T _J = 125 °C @ 80A, Pulse, T _J = 125 °C	0.51 0.54	0.56 0.67	V
Reverse Current (per leg) *	I _{R1}	@V _R = rated V _R T _J = 25 °C	0.4	0.64	mA
	I _{R2}	@V _R = rated V _R T _J = 125 °C	200	240	mA
Junction Capacitance (per leg)	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz	2000	5200	pF
Series Inductance (per leg)	L _S	Measured lead to lead 5 mm from package body	5.5	-	nH
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

* Pulse Width < 300μs, Duty Cycle <2%

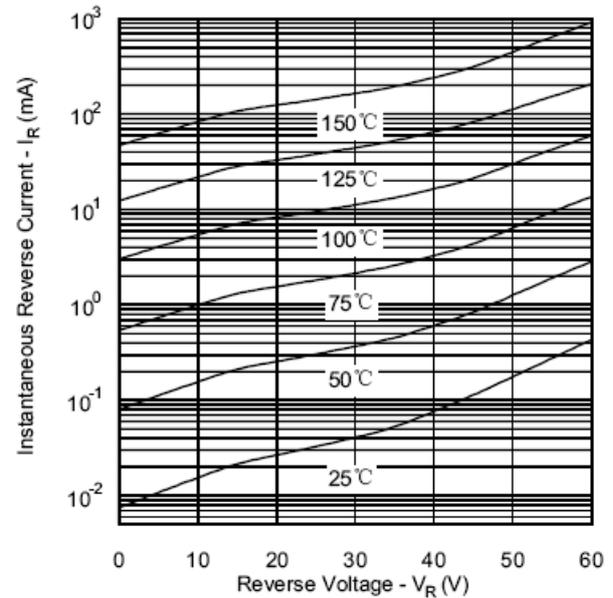
Thermal-Mechanical Specifications:

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
Approximate Weight	wt	-	7.8	g
Mounting Torque	T _M	-	40(min)	Kg-cm
			58(max)	
Case Style	PRM2 PRM2-SL PRM2-SM			

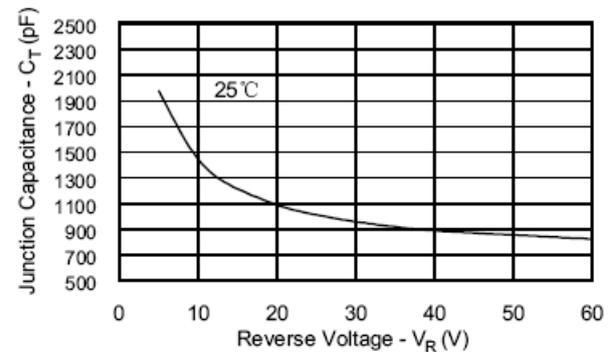
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance





88CNQ060

Technical Data
Data Sheet N1154, Rev. -

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