

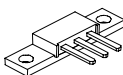
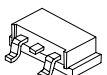
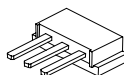
**86CNQ200-G SCHOTTKY RECTIFIER**

**Applications:**

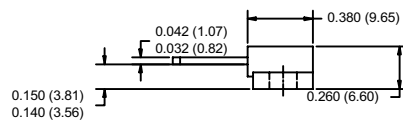
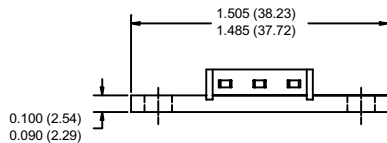
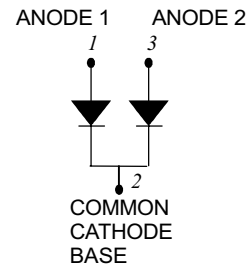
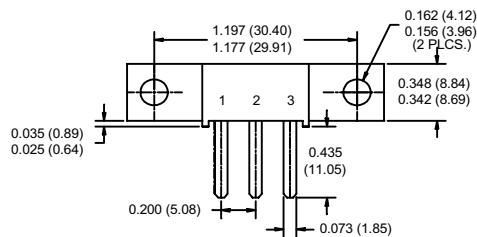
- Switching power supply • Free-Wheeling Diodes • Reverse battery protection • Converters

**Features:**

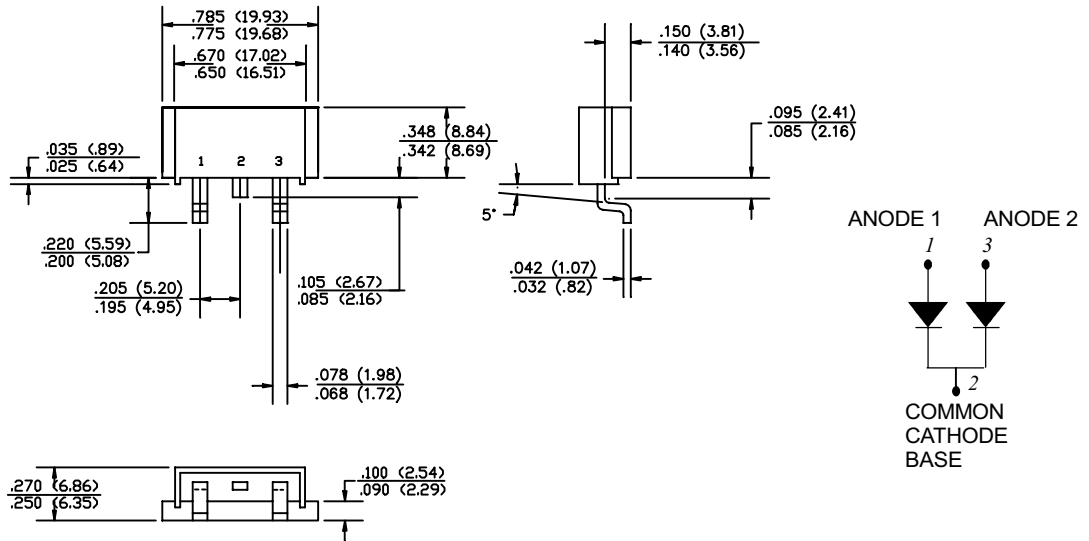
- 175°C T<sub>J</sub> operation
- Center tap module
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- New fully transfer-mould low profile, small footprint, high current package
- Green Products in Compliance with the RoHS Directive

Case styles		
<p><b>86CNQ200-G</b></p>  <p><b>PRM2</b></p>	<p><b>86CNQ200SL-G</b></p>  <p><b>PRM2-SL</b></p>	<p><b>86CNQ200SM-G</b></p>  <p><b>PRM2-SM</b></p>

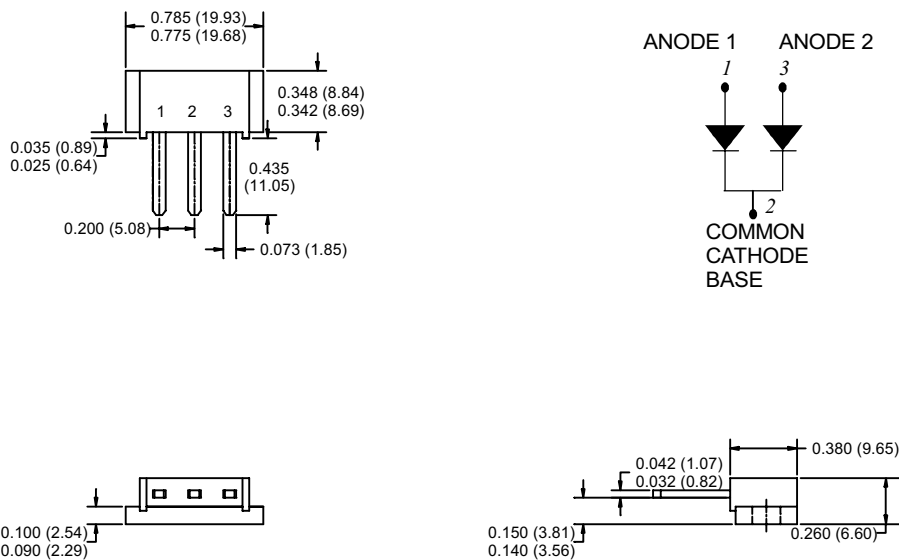
**Mechanical Dimensions: In Inches / mm**



**PRM2**



**PRM2-SL**



**PRM2-SM**

Data Sheet 3771, Rev. -  
Maximum Ratings:

*Green Products*

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	200	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 130\text{ }^\circ\text{C}$ , rectangular wave form	40 (per leg)	A
			80 (per device)	
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	$I_{FSM}$	8.3 ms, half Sine pulse	150	A

**Electrical Characteristics:**

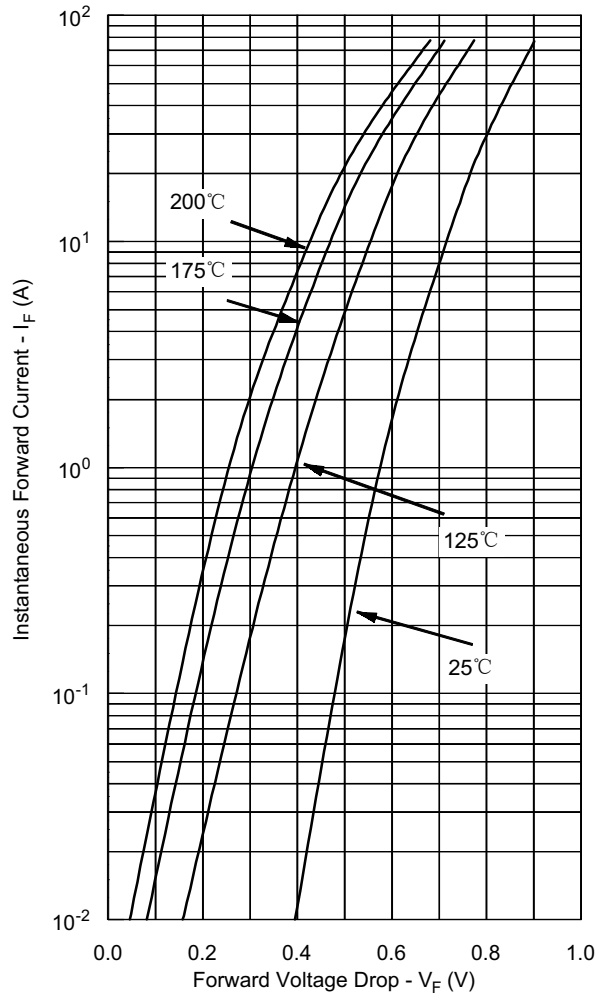
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	$V_{F1}$	@ 40 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.99	V
		@ 80 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	1.14	
	$V_{F2}$	@ 40 A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.69	V
		@ 80 A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.78	
Max. Reverse Current (per leg) *	$I_{R1}$	@ $V_R = \text{rated } V_R$ $T_J = 25\text{ }^\circ\text{C}$	1.1	mA
		@ $V_R = \text{rated } V_R$ $T_J = 125\text{ }^\circ\text{C}$	24	
Max. Junction Capacitance (per leg)	$C_T$	@ $V_R = 5\text{ V}$ , $T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{ MHz}$	900	pF
Typical Series Inductance (per leg)	$L_S$	Measured lead to lead 5 mm from package body	5.5	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/ $\mu\text{s}$

\* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle <2%

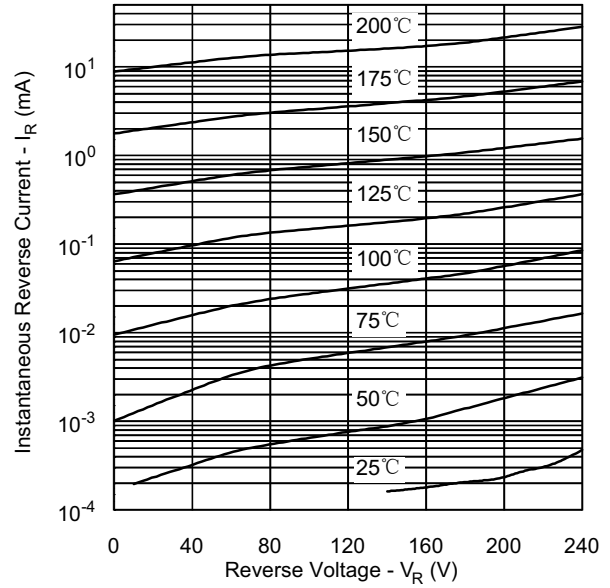
**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	$T_J$	-	-55 to +175	$^\circ\text{C}$
Max. Storage Temperature	$T_{stg}$	-	-55 to +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case (per leg)	$R_{\theta JC}$	DC operation	0.85	$^\circ\text{C/W}$
Maximum Thermal Resistance Junction to Case (per package)	$R_{\theta JC}$	DC operation	0.42	$^\circ\text{C/W}$
Maximum Thermal Resistance, Case to Heat Sink (D61-8 Only)	$R_{\theta CS}$	Mounting surface, smooth and greased Device flatness < 5 mils	0.30	$^\circ\text{C/W}$
Approximate Weight	wt	-	7.8	g
Mounting Torque (D61-8 Only)	$T_M$	-	40 (min) 58 (max)	Kg-cm
Case Style	PRM2 PRM2-SL PRM2-SM			

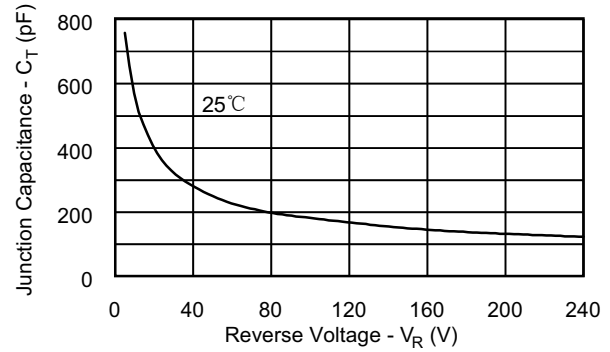
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**



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