



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!



Contact us

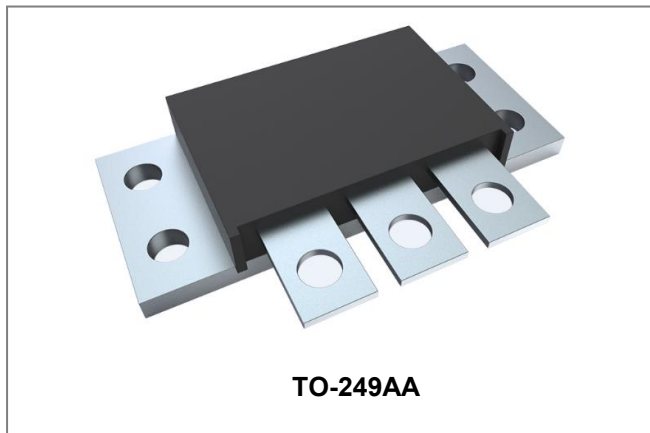
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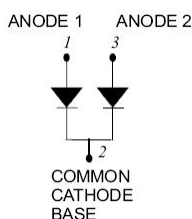
161CMQ...SERIES SCHOTTKY RECTIFIER



Features

- 150 °C T_J operation
- Isolated heatsink
- Low profile, high current package
- Center tap module
- 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
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Applications

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

Maximum Ratings:

Characteristics	Symbol	Condition	Max.		Units
			35	161CMQ035	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	-	40	161CMQ040	V
			45	161CMQ045	
Average Rectified Forward Current	I _{F(AV)}	50% duty cycle @T _C =101°C, rectangular wave form	80(Per Leg) 160(Per Device)		A
Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine pulse	1080		A
Non-Repetitive Avalanche Energy (Peg Leg)	E _{AS}	T _J =25°C, I _{AS} =16A, L=0.84mH	108		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×V _R typical	16		A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(Peg Leg)*	V_{F1}	@ 80A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.64	0.71	V
		@ 160A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.75	0.88	
	V_{F2}	@ 80A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.56	0.63	V
		@ 160A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.66	0.79	
Reverse Current(Peg Leg)*	I_{R1}	@ $V_R = \text{rated } V_R, T_J = 25\text{ }^\circ\text{C}$	0.3	5	mA
	I_{R2}	@ $V_R = \text{rated } V_R, T_J = 125\text{ }^\circ\text{C}$	25	45	mA
Junction Capacitance(Peg Leg)	C_T	@ $V_R = 5\text{V}, T_C = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{MHz}$	2200	2600	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/ μs

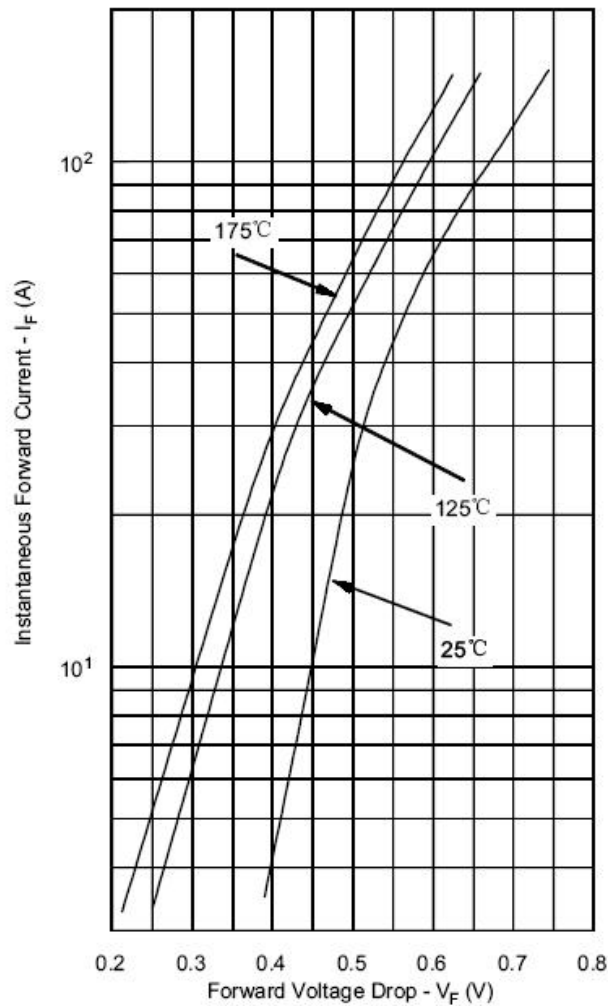
* Pulse width < 300 μs , duty cycle < 2%

Thermal-Mechanical Specifications:

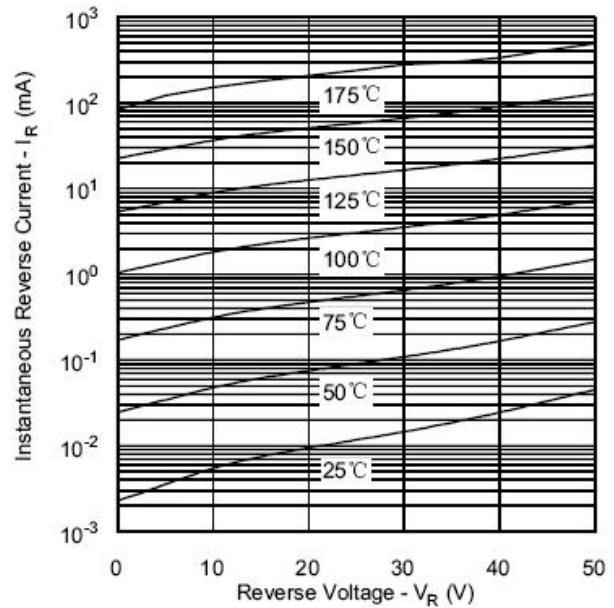
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +175	$^\circ\text{C}$
Storage Temperature	T_{stg}	-	-55 to +175	$^\circ\text{C}$
Typical Thermal Resistance Junction to Case (Per Leg)	$R_{\theta JC}$	DC operation	1.0	$^\circ\text{C/W}$
Typical Thermal Resistance Junction to Case (Per Package)	$R_{\theta JC}$	DC operation	0.50	$^\circ\text{C/W}$
Typical Thermal Resistance, case to Heat Sink	$R_{\theta cs}$	Mounting surface, smooth and greased	0.10	$^\circ\text{C/W}$
Mounting Torque	T_M	-	40(min)	Kg-cm
			58(max)	
Approximate Weight	wt	-	58	g

Ratings and Characteristics Curves

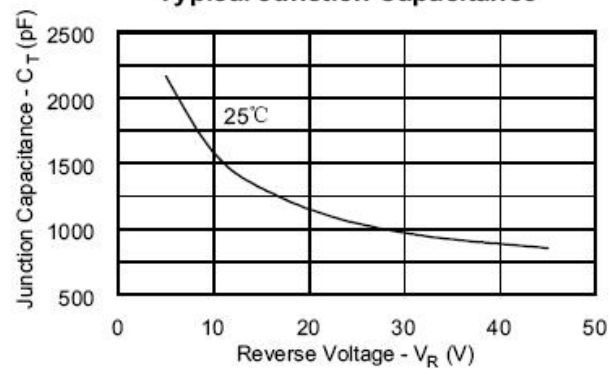
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance

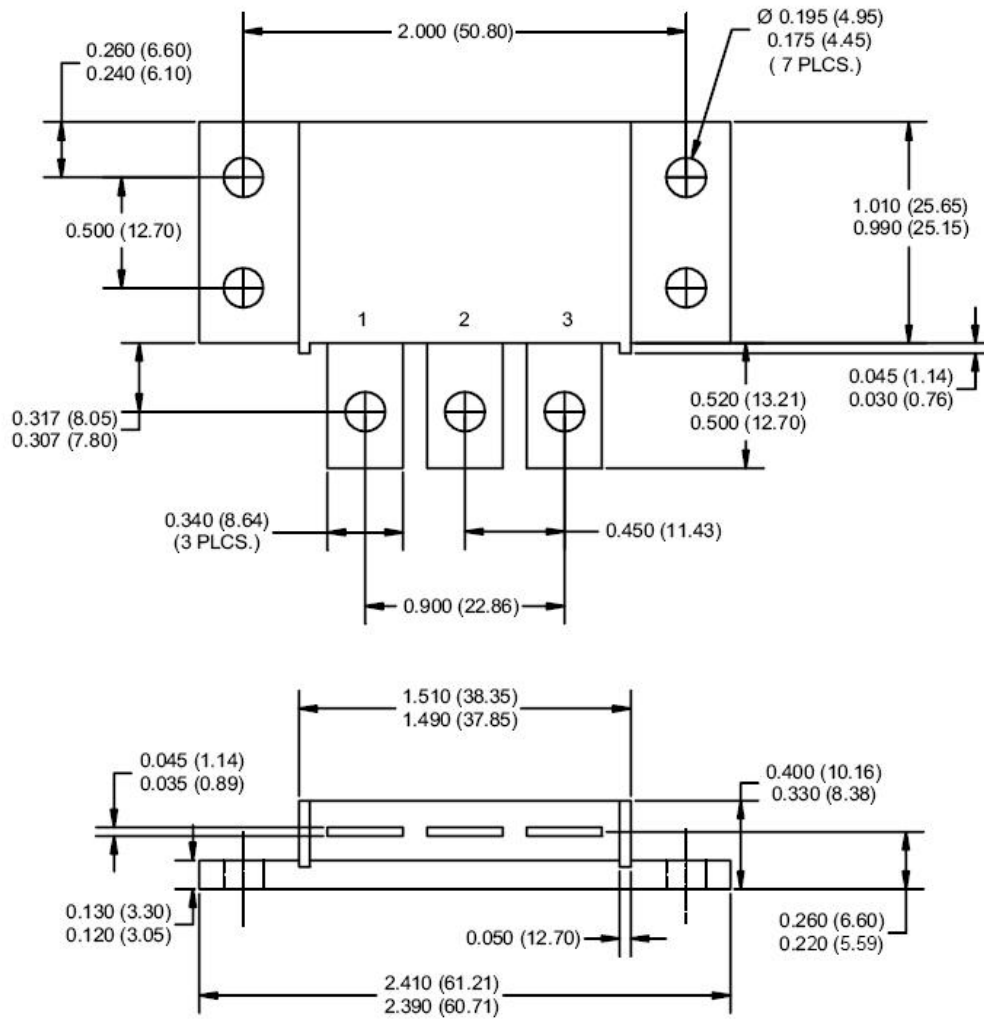


Ordering Information

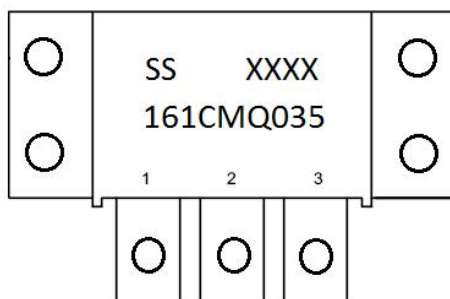
Device	Package	Shipping
161CMQ SERIES	TO-249AA(Pb-Free)	24pcs/ box

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Mechanical Dimensions TO-249AA (Inches/Millimeters)



Marking Diagram



Where XXXX is YYWW

1st row SS YYWW
2nd row 161CMQ035
3rd row 1 2 3 (pin)
SS = SS
YY = Year
WW = Week

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

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