



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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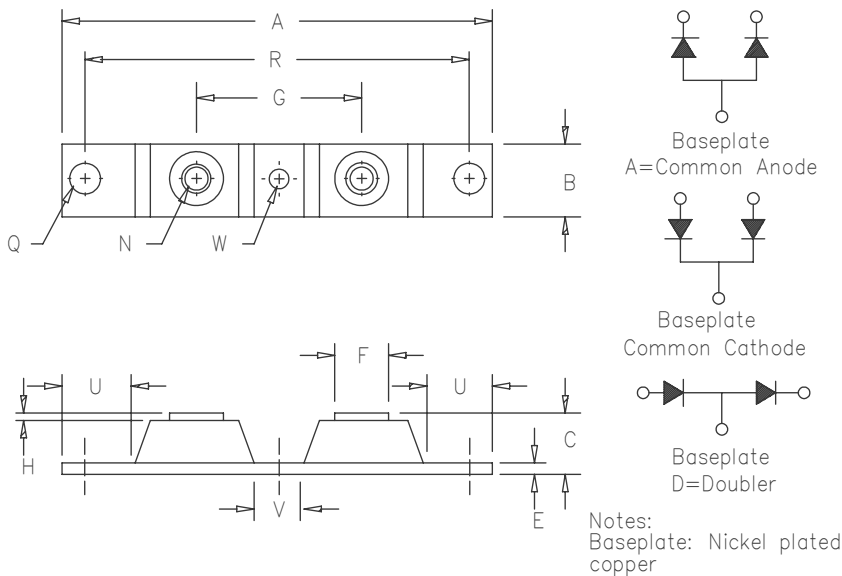
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Schottky PowerMod

CPT12035 — CPT12050



Dim.	Inches		Millimeters		Notes
	Min.	Max.	Min.	Max.	
A	---	3.630	---	92.20	
B	0.700	0.800	17.78	20.32	
C	---	0.630	---	16.00	
E	0.120	0.130	3.05	3.30	
F	0.490	0.510	12.45	12.95	
G	1.375	BSC	34.92	BSC	
H	0.010	---	0.25	---	
N	---	---	---	---	1/4-20
Q	0.275	0.290	6.99	7.37	Dia.
R	3.150	BSC	80.01	BSC	
U	0.600	---	15.24	---	
V	0.312	0.340	7.92	8.64	
W	0.180	0.195	4.57	4.95	Dia.

Microsemi Catalog Number	Industry Part Number	Working Reverse Voltage	Peak Reverse Voltage
CPT12035*	MBR12035CT	35V	35V
CPT12040*	MBR12040CT	40V	40V
CPT12045*	MBR12045CT	45V	45V
CPT12050*		50V	50V

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring Protection
- 120 Amperes/35 to 50 Volts
- 175°C Junction Temperature
- Reverse Energy Tested
- ROHS Compliant

Electrical Characteristics

Average forward current per pkg	I _{F(AV)} 120 Amps	T _C = 140°C, Square wave, R _{θJC} = 0.43°C/W
Average forward current per leg	I _{F(AV)} 60 Amps	T _C = 140°C, Square wave, R _{θJC} = 0.85°C/W
Maximum surge current per leg	I _{FSM} 1000 Amps	8.3ms, half sine, T _J = 175°C
Maximum repetitive reverse current per leg	I _{R(OV)} 2 Amps	f = 1 KHZ, 25° C, 1µsec square wave
Max peak forward voltage per leg	V _{FM} .63 Volts	I _{FM} = 120A: T _J = 175°C
Max peak forward voltage per leg	V _{FM} .80 Volts	I _{FM} = 120A: T _J = 25°C*
Max peak reverse current per leg	I _{RM} 40 mA	V _{RRM} , T _J = 125°C*
Max peak reverse current per leg	I _{RM} 3 mA	V _{RRM} , T _J = 25°C
Typical junction capacitance per leg	C _J 2700 pF	V _R = 5.0V, T _J = 25°C

*Pulse test: Pulse width 300µsec, Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temp range	T _{STG}	-55° C to 175° C
Operation junction temp range	T _J	-55° C to 175° C
Max thermal resistance per leg	R _{θJC}	0.85° C/W Junction to case
Max thermal resistance per pkg	R _{θJC}	0.43° C/W Junction to case
Typical thermal resistance (greased)	R _{θCS}	0.08° C/W Case to sink
Terminal Torque		35-40 inch pounds
Mounting Base Torque (outside holes)		30-40 inch pounds
Mounting Base Torque (center hole)		8-10 inch pounds
Weight		2.8 ounces (75 grams) typical

CPT12035 – CPT12050

Figure 1
Typical Forward Characteristics – Per Leg

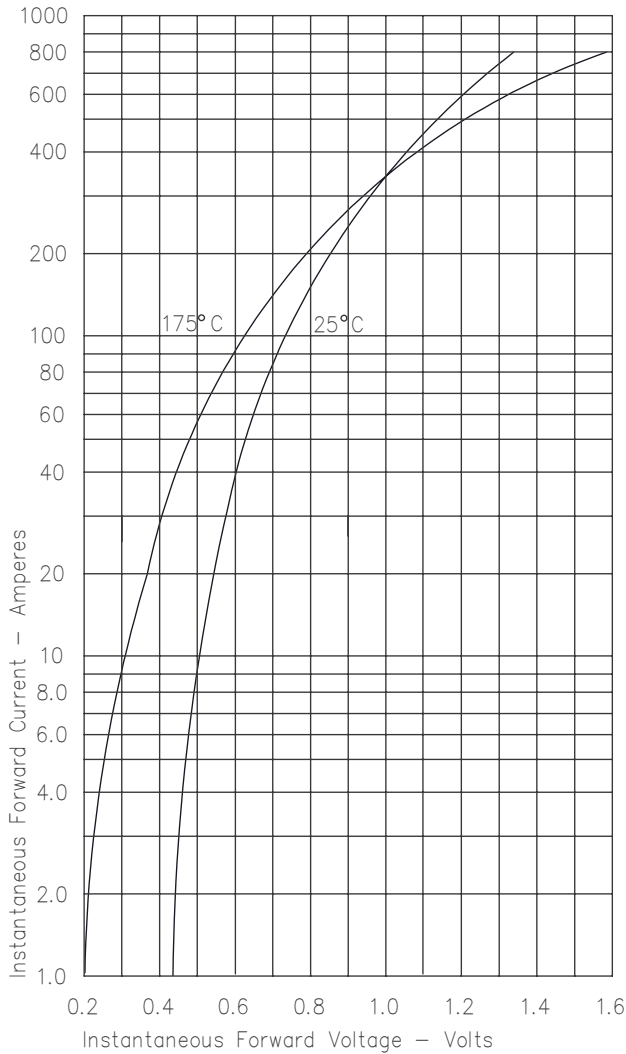


Figure 3
Typical Junction Capacitance – Per Leg

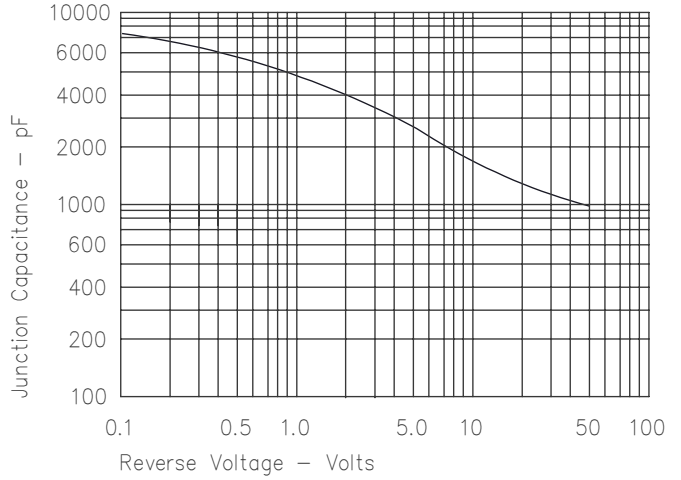


Figure 4
Forward Current Derating – Per Leg

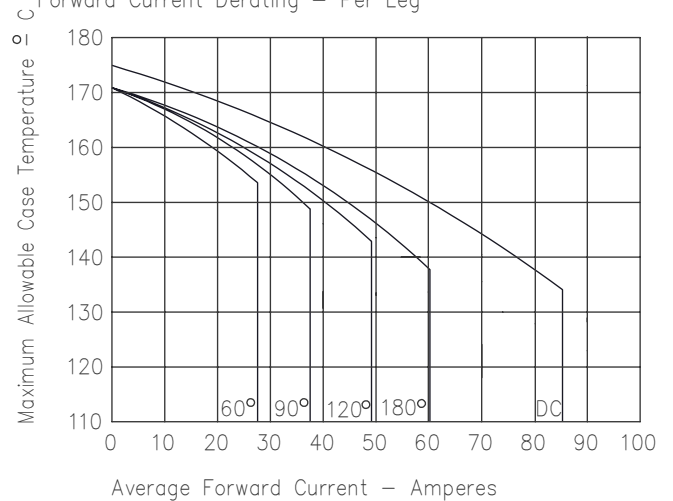


Figure 2
Typical Reverse Characteristics – Per Leg

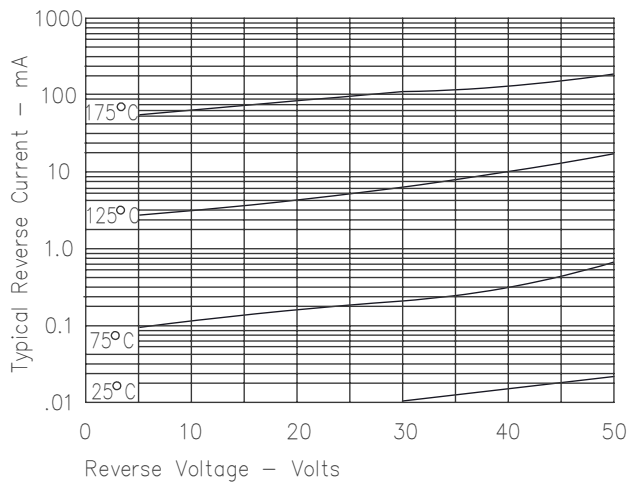
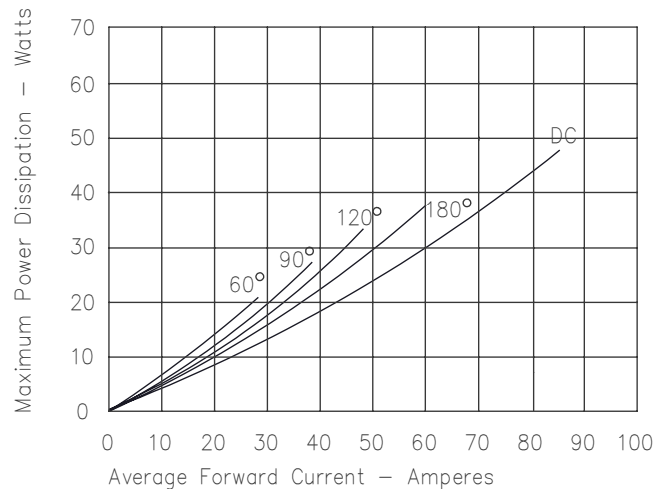


Figure 5
Maximum Forward Power Dissipation – Per Leg



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