



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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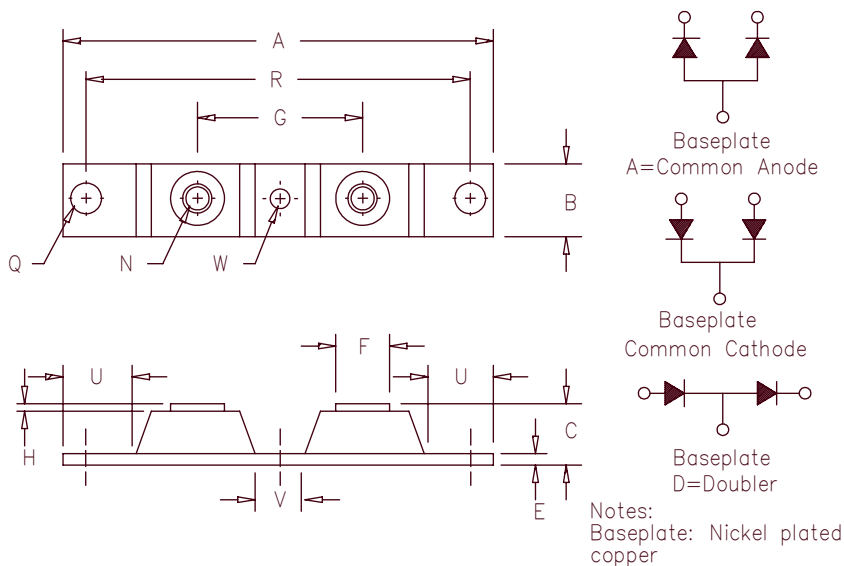
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Schottky PowerMod

CPT50235 — CPT50245



Dim. Inches		Millimeters		Notes
Min.	Max.	Min.	Max.	
A	---	3.630	---	92.20
B	0.700	0.800	17.78	20.32
C	0.615	0.640	15.53	16.26
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	0.007	0.030	0.18	0.76
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 Peak Reverse Voltage	Repetitive Peak Reverse Voltage
CPT50235*	440CNQ030 444CNQ035 MBR50035CT	35V	35V
CPT50240*	444CNQ040 MBR50040CT	40V	40V
CPT50245*	444CNQ045 MBR50045CT	45V	45V

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring Protection
- 500 Amperes/35 to 45 Volts
- 150°C Junction Temperature
- Reverse Energy Tested
- ROHS Compliant

Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$ 500 Amps	$T_C = 79^\circ\text{C}$, square wave, $R_{\theta JC} = 0.12^\circ\text{C/W}$
Average forward current per leg	$I_{F(AV)}$ 250 Amps	$T_C = 79^\circ\text{C}$, square wave, $R_{\theta JC} = 0.24^\circ\text{C/W}$
Maximum surge current per leg	I_{FSM} 5000 Amps	8.3ms, half sine, $T_J = 150^\circ\text{C}$
Maximum repetitive reverse current per leg	$I_{R(OV)}$ 2 Amps	$f = 1 \text{ KHZ}$, 25°C , $1\mu\text{sec}$ square wave
Max peak forward voltage per leg	V_{FM} 0.55 Volts	$I_{FM} = 250\text{A}$; $T_J = 25^\circ\text{C}^*$
Max peak forward voltage per leg	V_{FM} 0.49 Volts	$I_{FM} = 250\text{A}$; $T_J = 150^\circ\text{C}^*$
Max peak reverse current per leg	I_{RM} 4.0 A	V_{RRM} ; $T_J = 125^\circ\text{C}^*$
Max peak reverse current per leg	I_{RM} 12.0 mA	V_{RRM} ; $T_J = 25^\circ\text{C}^*$
Typical junction capacitance per leg	C_J 10500 pF	$V_R = 5.0\text{V}$, $T_C = 25^\circ\text{C}$

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

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	-55°C to 150°C
Operating junction temp range	T_J	-55°C to 150°C
Max thermal resistance per leg	$R_{\theta JC}$	0.24°C/W Junction to case
Max thermal resistance per pkg	$R_{\theta JC}$	0.12°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	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
center hole must be torqued first		
Weight		2.8 ounces (78 grams) typical

CPT50235 — CPT50245

Figure 1
Typical Forward Characteristics — Per Leg

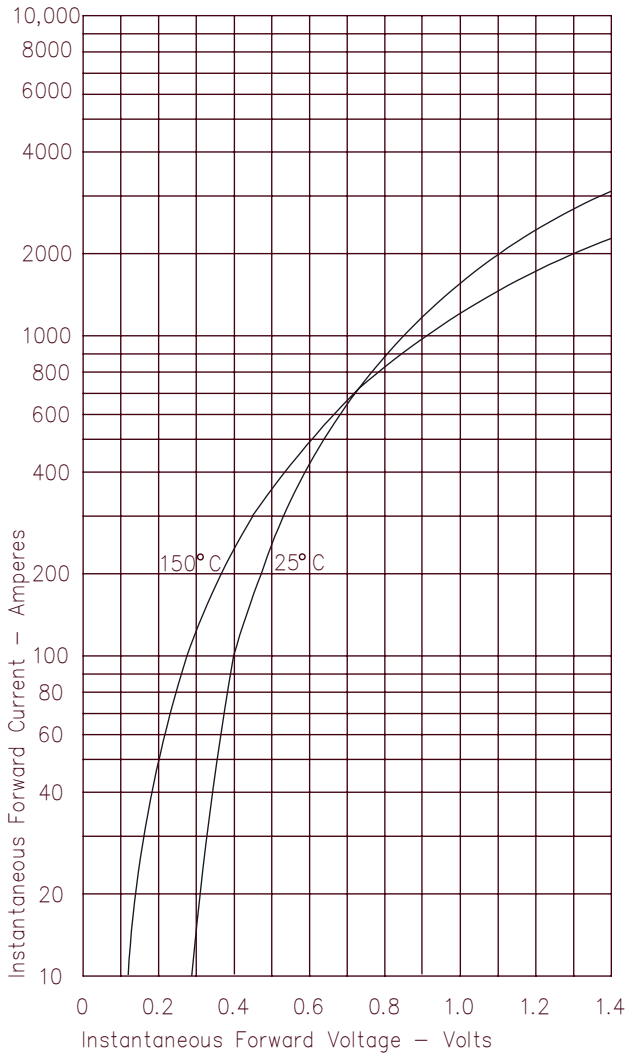


Figure 3
Typical Junction Capacitance — Per Leg

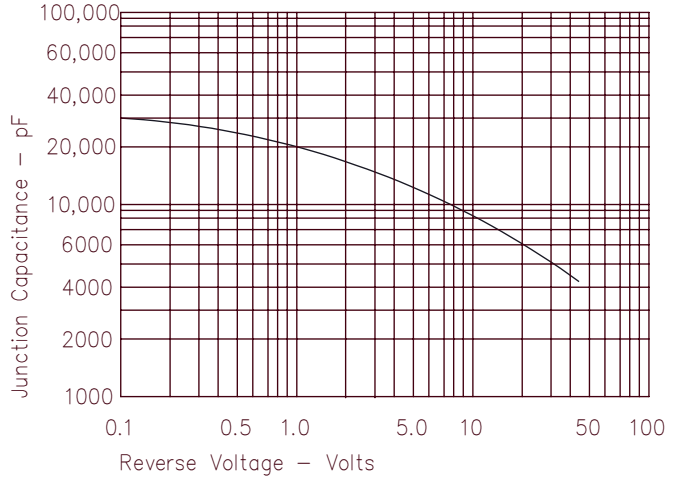


Figure 4
Forward Current Derating — Per Leg

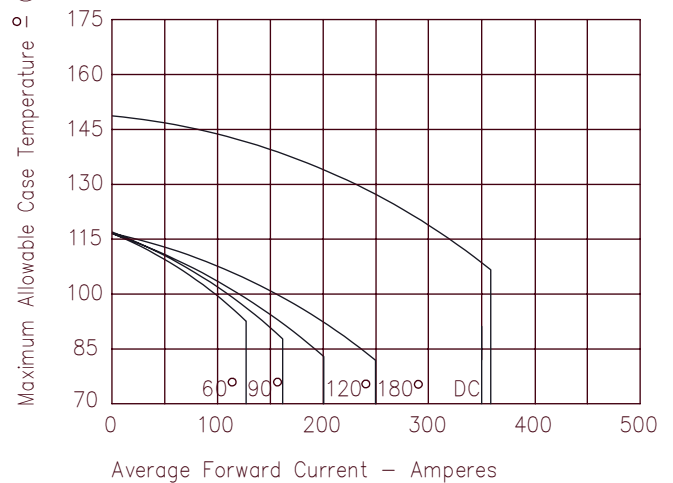


Figure 2
Typical Reverse Characteristics — Per Leg

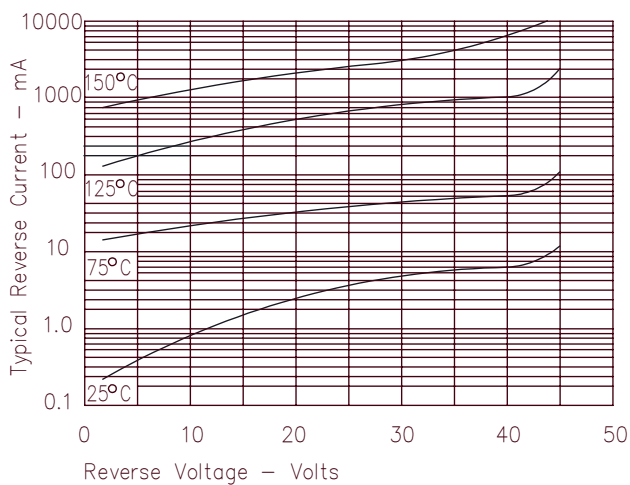
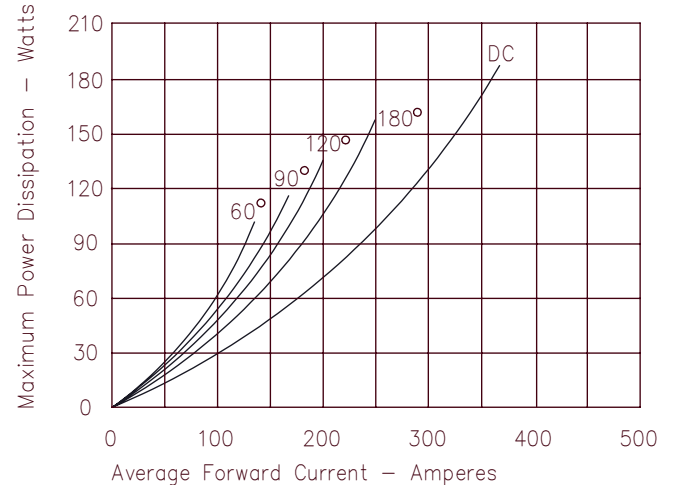


Figure 5
Maximum Forward Power Dissipation — Per Leg



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