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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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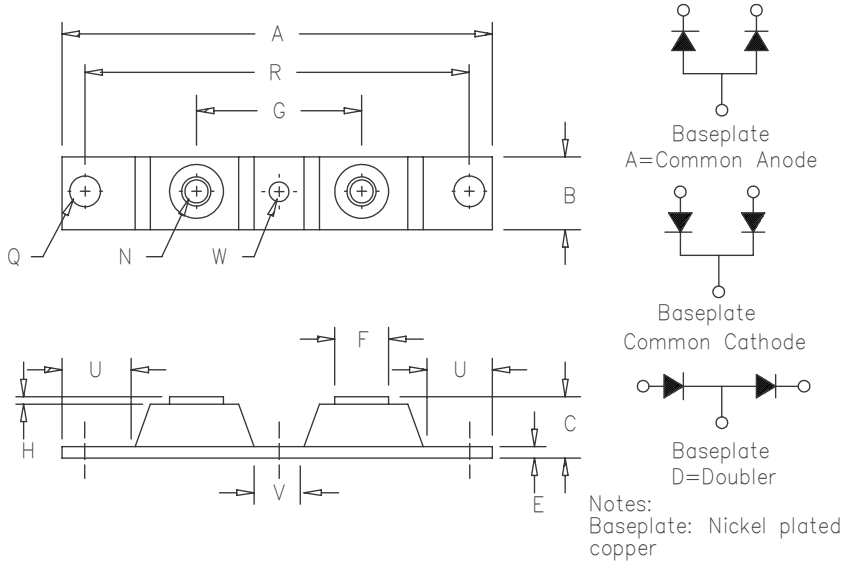
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# Schottky PowerMod

## CPT40130 — CPT40145



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 Peak Reverse Voltage	Repetitive Peak Reverse Voltage
CPT40130*	MBR40030CT	30V	30V
CPT40135*	400CNQ035	35V	35V
CPT40140*	400CNQ040	40V	40V
CPT40145*	400CNQ045 MBRP40045CTL	45V	45V

\*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring Protection
- 400 Amperes/30 to 45 Volts
- 150°C Junction Temperature
- Reverse Energy Tested
- ROHS Compliant

### Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$ 400 Amps	$T_C = 79^\circ\text{C}$ , Square wave, $R_{\theta JC} = 0.16^\circ\text{C/W}$
Average forward current per leg	$I_{F(AV)}$ 200 Amps	$T_C = 79^\circ\text{C}$ , Square wave, $R_{\theta JC} = 0.32^\circ\text{C/W}$
Maximum surge current per leg	$I_{FSM}$ 3000 Amps	8.3ms, half sine, $T_J = 150^\circ\text{C}$
Maximum repetitive reverse current per leg	$I_{R(OV)}$ 2 Amps	$f = 1 \text{ KHZ}$ , $25^\circ\text{C}$ , $1\mu\text{sec}$ square wave
Max peak forward voltage per leg	$V_{FM}$ 0.57 Volts	$I_{FM} = 200\text{A}; T_J = 25^\circ\text{C}^*$
Max peak forward voltage per leg	$V_{FM}$ 0.49 Volts	$I_{FM} = 200\text{A}; T_J = 150^\circ\text{C}^*$
Max peak reverse current per leg	$I_{RM}$ 3.5 A	$V_{RRM}, T_J = 125^\circ\text{C}^*$
Max peak reverse current per leg	$I_{RM}$ 10 mA	$V_{RRM}, T_J = 25^\circ\text{C}^*$
Typical junction capacitance per leg	$C_J$ 7000 pF	$V_R = 5.0\text{V}, T_C = 25^\circ\text{C}$

\*Pulse test: Pulse width 300 $\mu\text{sec}$ , 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	$R_{\theta JC}$	0.32°C/W Junction to case
Max thermal resistance per pkg	$R_{\theta JC}$	0.16°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 maximum
Mounting Base Torque (outside holes)		30-40 inch pounds maximum
Mounting Base Torque (center hole) center hole must be torqued first		8-10 inch pounds maximum
Weight		2.8 ounces (77 grams) typical

# CPT40130 – CPT40145

Figure 1  
Typical Forward Characteristics – Per Leg

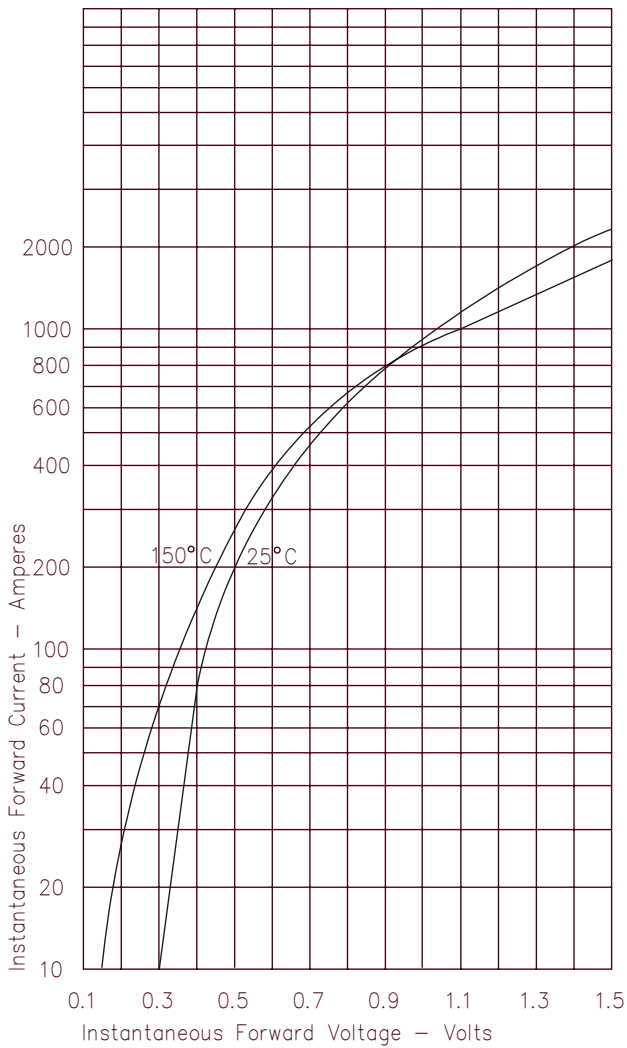


Figure 3  
Typical Junction Capacitance – Per Leg

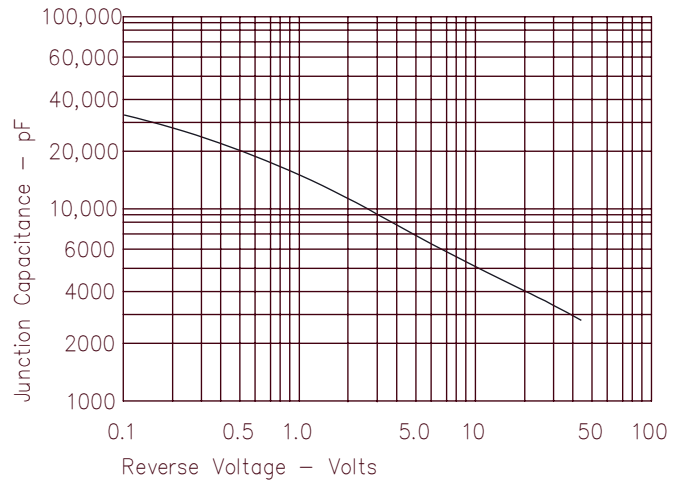


Figure 4  
Forward Current Derating – Per Leg

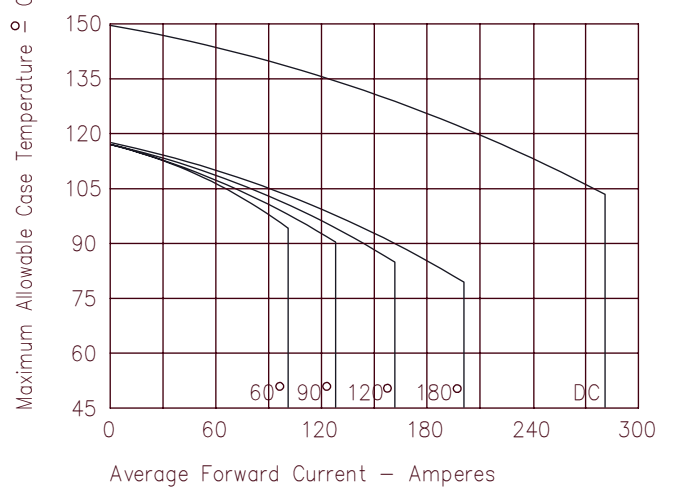


Figure 2  
Typical Reverse Characteristics – Per Leg

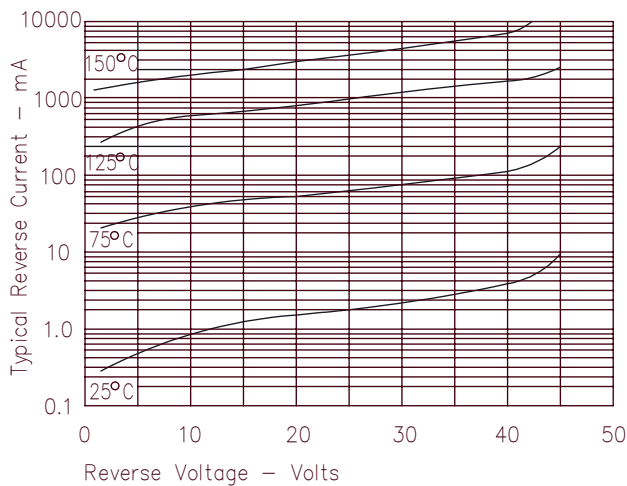
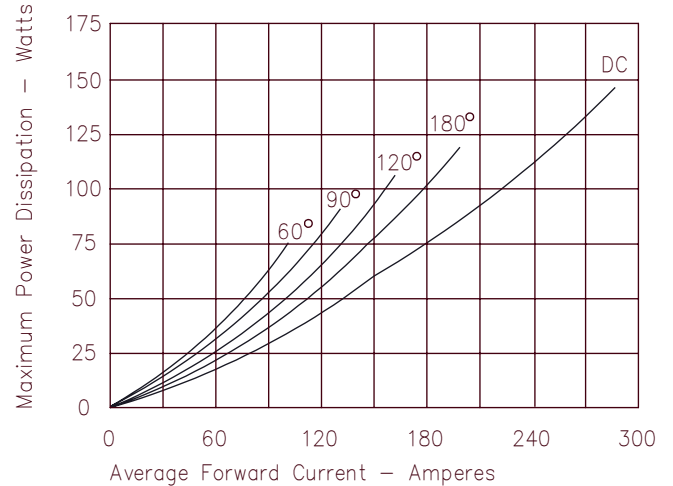


Figure 5  
Maximum Forward Power Dissipation – Per Leg



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