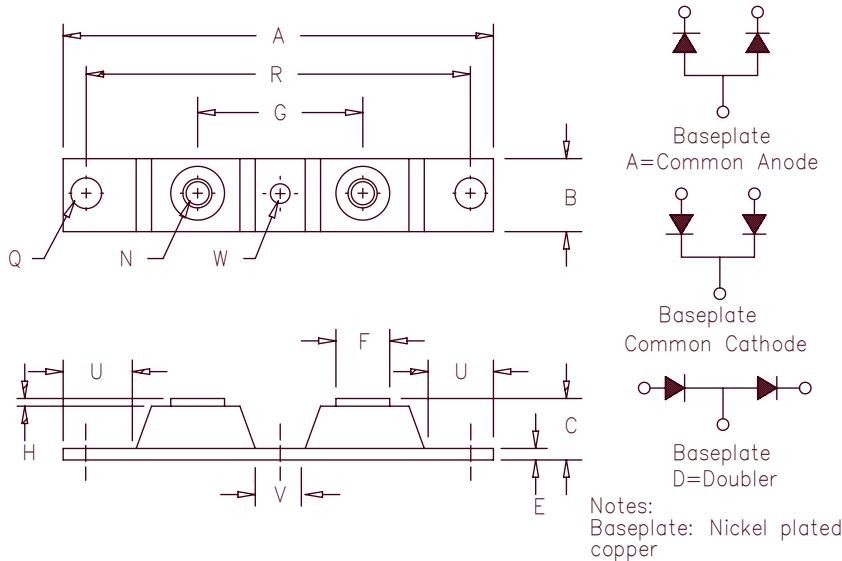


Schottky PowerMod

CPT60135 – CPT60145



Dim.	Inches		Millimeters		Notes
	Min.	Max.	Min.	Max.	
A	---	3.630	---	92.20	
B	0.700	0.800	17.78	20.32	
C	---	0.680	---	17.28	
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

Working Peak Reverse Voltage

Repetitive Peak Reverse Voltage

CPT60135*

35V

35V

CPT60140*

40V

40V

CPT60145*

45V

45V

*Add Suffix A for Common Anode, D for Doubler

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

Electrical Characteristics

Average forward current per pkg
Average forward current per leg
Maximum surge current per leg
Maximum repetitive reverse current per leg
Max peak forward voltage per leg
Max peak forward voltage per leg
Max peak reverse current per leg
Max peak reverse current per leg
Typical junction capacitance per leg

I_F(AV) 600 Amps
I_F(AV) 300 Amps
I_{FSM} 6000 Amps
I_{R(OV)} 2 Amps
V_{FM} 0.55 Volts
V_{FM} 0.43 Volts
I_{RM} 3.0 A
I_{RM} 21 mA
C_J 15000 pF

T_C = 94°C, Square wave, R_{θJC} = 0.12°C/W
T_C = 94°C, Square wave, R_{θJC} = 0.21°C/W
8.3ms, half sine, T_J = 175°C
f = 1 KHZ, 25°C, 1μsec square wave
I_{FM} = 300A: T_J = 25°C
I_{FM} = 300A: T_J = 150°C
V_{RRM}, T_J = 125°C*
V_{RRM}, T_J = 25°C
V_R = 5.0V, T_C = 25°C

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

Thermal and Mechanical Characteristics

Storage temp range
Operating junction temp range
Max thermal resistance per leg
Max thermal resistance per pkg
Typical thermal resistance (greased)
Terminal Torque
Mounting Base Torque (outside holes)
Mounting Base Torque (center hole)
center hole must be torqued first
Weight

T_{STG}
T_J
R_{θJC}
R_{θJC}
R_{θCS}

-55°C to 150°C
-55°C to 150°C
0.21°C/W Junction to case
0.12°C/W Junction to case
0.08°C/W Case to sink
35–50 inch pounds
30–40 inch pounds
8–10 inch pounds
2.8 ounces (78 grams) typical

CPT60135 – CPT60145

Figure 1
Typical Forward Characteristics – Per Leg

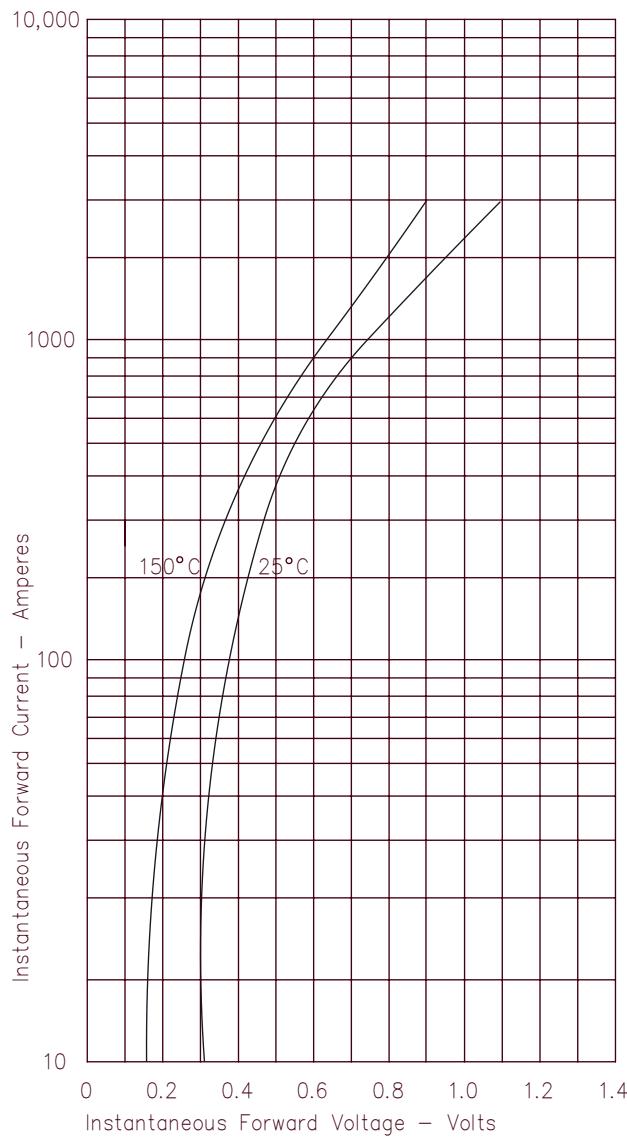


Figure 2
Typical Reverse Characteristics – Per Leg

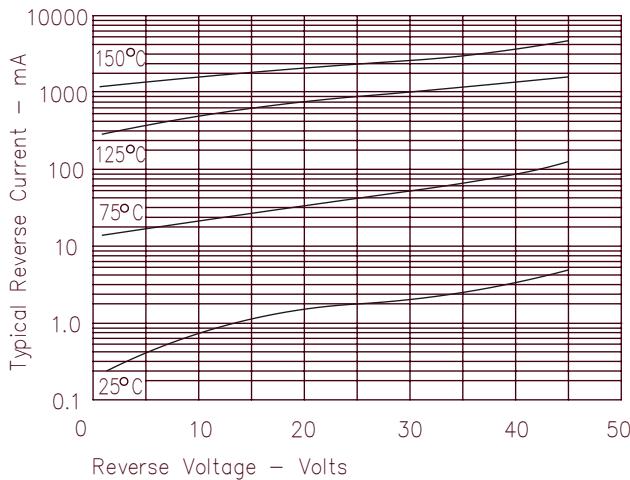


Figure 3
Typical Junction Capacitance – Per Leg

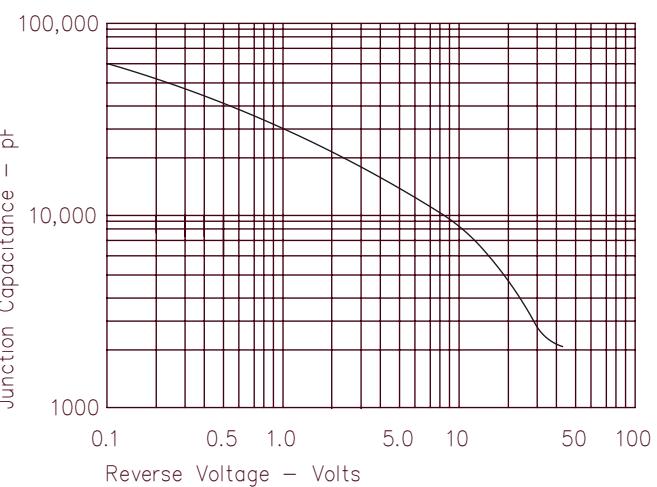


Figure 4
Forward Current Derating – Per Leg

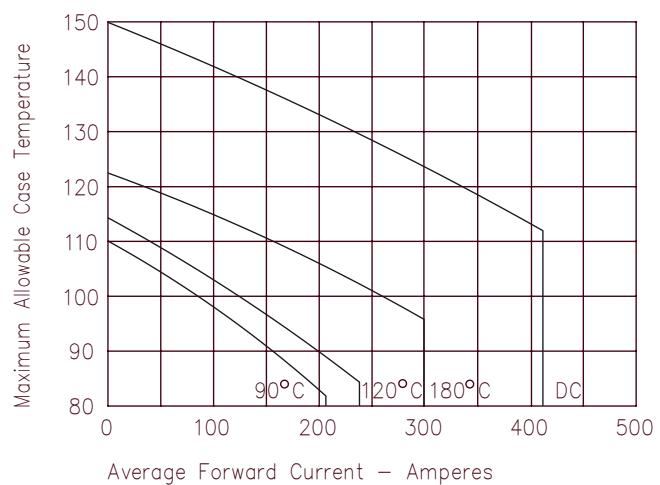
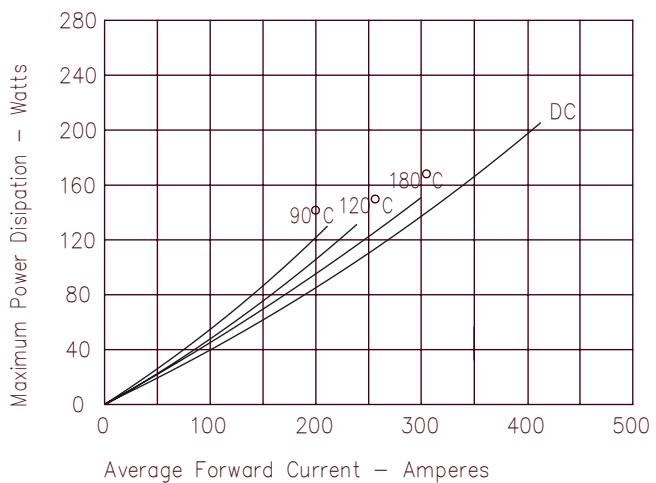


Figure 5
Maximum Forward Power Dissipation – Per Leg



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