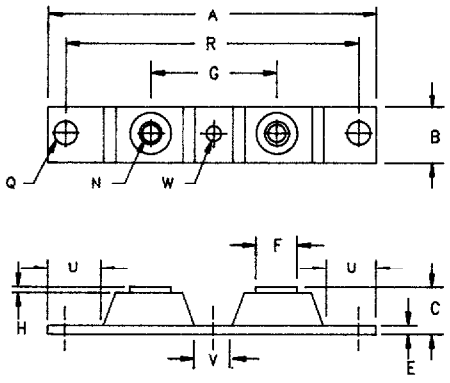
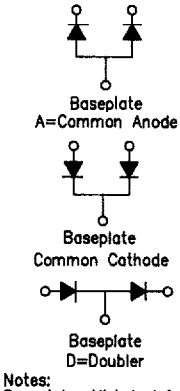
Schottky PowerMod
CPT40060





Notes:
Baseplate: Nickel plated copper; common cathode

Dim.	Inches		Millimeters		
	Min.	Max.	Min.	Max.	Notes
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	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
CPT40060*	60V	60V

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring Protection
- V_{RRM} 60 Volts
- 175°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$	400 Amps	T_C = 125°C, Square wave, $R_{\theta JC}$ = 0.16°C/W
Average forward current per leg	$I_{F(AV)}$	200 Amps	T_C = 125°C, Square wave, $R_{\theta JC}$ = 0.32°C/W
Maximum surge current per leg	I_{FSM}	3000 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, 1 usec square wave
Max peak forward voltage per leg	V_{FM}	.80 Volts	I_{FM} = 200A; T_J = 25°C*
Max peak forward voltage per leg	V_{FM}	.65 Volts	I_{FM} = 200A; T_J = 175°C*
Max peak reverse current per leg	I_{RM}	100 mA	V_{RRM}, T_J = 125°C*
Max peak reverse current per leg	I_{RM}	5.0 mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J	6500 pF	V_R = 5.0V, T_C = 25°C

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

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	−40°C to 175°C
Operating junction temp range	T_J	−40°C to 175°C
Max thermal resistance	$R_{\theta JC}$	0.32°C/W Junction to case
Typical thermal resistance	$R_{\theta CS}$	0.08°C/W Case to sink
Terminal Torque		50 inch pounds maximum
Mounting Base Torque (outside holes)		40 inch pounds maximum
Mounting Base Torque (center hole) center hole must be torqued first		10 inch pounds maximum
Weight		2.8 ounces (78.3 grams) typical

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Colorado

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CPT40060

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Figure 1
Typical Forward Characteristics – Per Leg

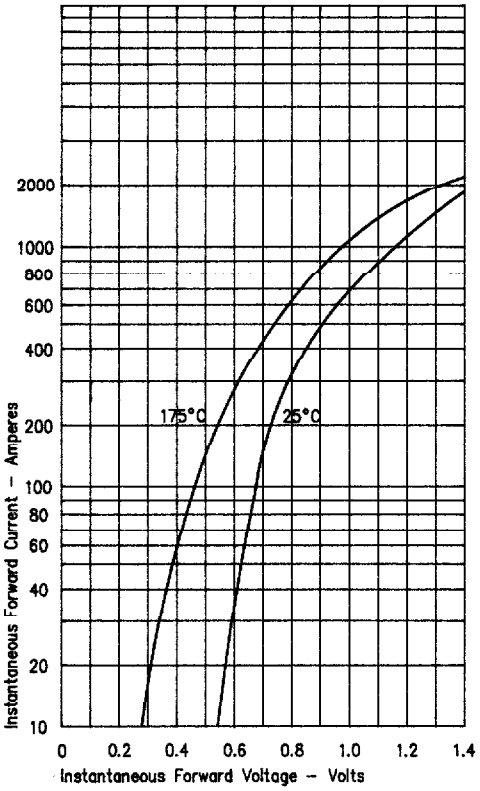

Figure 2
Typical Reverse Characteristics – Per Leg

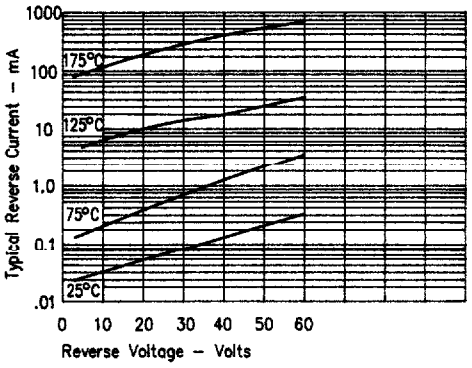

Figure 3
Typical Junction Capacitance – Per Leg

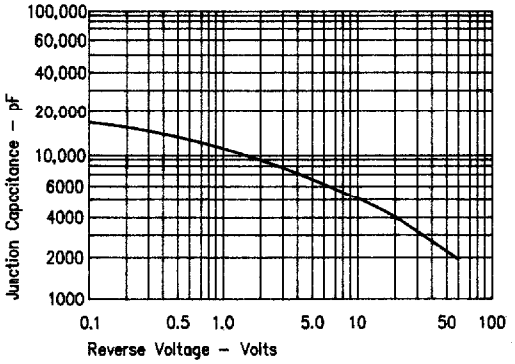

Figure 4
Forward Current Derating – Per Leg

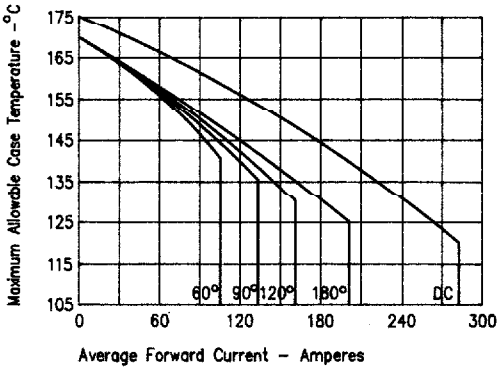

Figure 5
Maximum Forward Power Dissipation – Per Leg