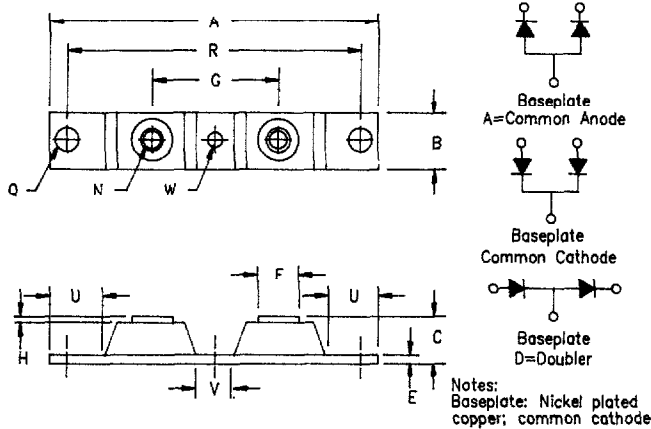


Schottky PowerMod

CPT20120 — CPT20140



Dim. Inches		Millimeters		Notes
Min.	Max.	Min.	Max.	
A	---	3.630	---	92.20
B	0.700	0.800	17.78	20.32
C	---	0.625	---	15.87
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	---	0.050	---	1.27
N	---	---	---	1/4-28 Dia.
O	0.280	0.310	6.86	7.11
R	3.150 BSC		80.01 BSC	
U	0.600	---	15.24	---
V	0.330	0.350	8.38	8.89
W	0.170	0.190	4.32	4.82
Y	46.10 BSC		1,815 BSC	

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
CPT20120*	20V	45V
CPT20125*	25V	50V
CPT20130*	30V	30V
CPT20135*	35V	35V
CPT20140*	40V	40V

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring Protection
- Common Cathode Center Tap
- 200 Amperes/40 Volts
- 125°C Junction Temperature
- Reverse Energy Tested
- VRRM 20 — 40 Volts

Electrical Characteristics

Average forward current per pkg	I _{F(AV)} 200 Amps	T _C = 96°C, Square wave, R _{θJC} = .20°C/W
Average forward current per leg	I _{F(AV)} 100 Amps	T _C = 96°C, Square wave, R _{θJC} = .40°C/W
Maximum surge current per leg	I _{FSM} 2000 Amps	8.3ms, half sine, T _J = 125°C
Maximum repetitive reverse current per leg	I _{R(OV)} 2 Amps	f = 1 KHZ, 25°C
Max peak forward voltage per leg	V _{FM} 0.68 Volts	I _{FM} = 200A; T _J = 25°C*
Max peak forward voltage per leg	V _{FM} 0.64 Volts	I _{FM} = 200A; T _J = 125°C*
Max peak reverse current per leg	I _{RM} 550mA	V _{RRM} , T _J = 125°C*
Max peak reverse current per leg	I _{RM} 4.0mA	V _{RRM} , T _J = 25°C
Typical junction capacitance	C _J 5500pF	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 150°C
Operating junction temp range	T _J	-40°C to 125°C
Max thermal resistance per leg	R _{θJC}	0.40°C/W Junction to case
Typical thermal resistance	R _{θCS}	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)		10 inch pounds maximum
Weight		2.8 ounces (75 grams) typical

Microsemi Corp.
Colorado

CPT20120 — CPT20140



Figure 1
Maximum Forward Characteristics — Per Leg

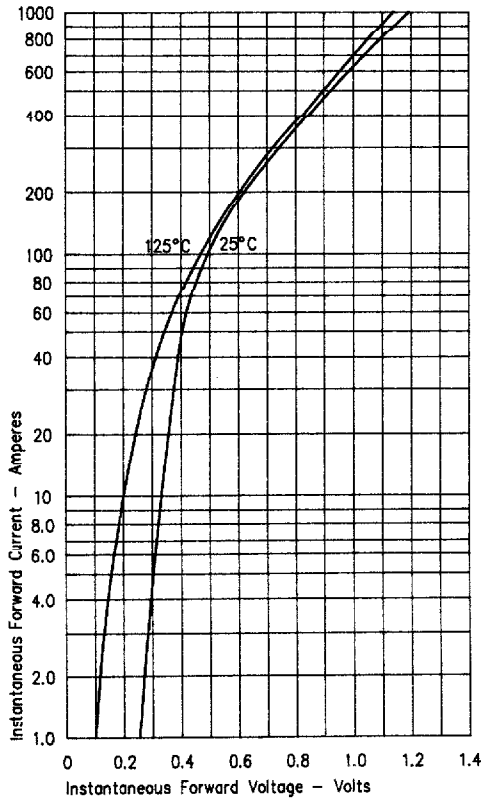


Figure 3
Forward Current Derating — Per Leg

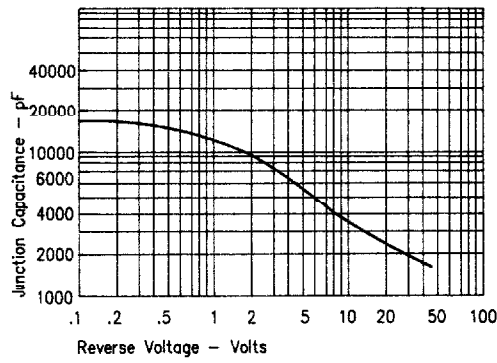


Figure 4
Typical Junction Capacitance — Per Leg

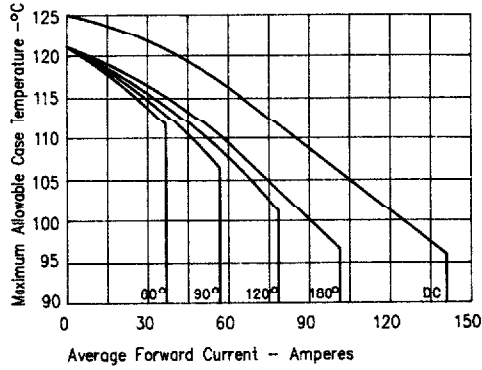


Figure 2
Typical Reverse Characteristics — Per Leg

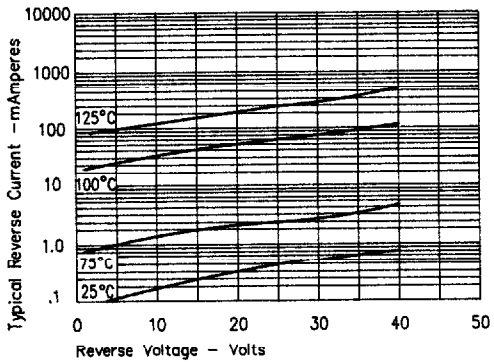


Figure 5
Maximum Forward Power Dissipation — Per Leg

