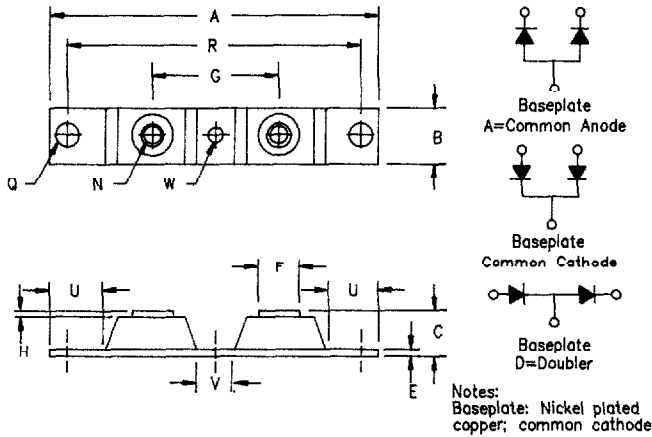


# Schottky PowerMod CPT20035 - CPT20050



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 Dia.
Q	0.275	0.290	6.99	7.37	
R	---	3.150	---	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
CPT20035*	35V	35V
CPT20040*	40V	40V
CPT20045*	45V	45V
CPT20050*	50V	50V

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

- Schottky Barrier Rectifier
- Guard Ring Protection
- Common Cathode Center Tap
- 200 Amperes/35 to 50 Volts
- 175°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics		
Average forward current per pkg	IF(AV) 200 Amps	TC = 143°C Square wave, RθJC = 0.25°C/W
Average forward current per leg	IF(AV) 100 Amps	TC = 143°C, Square wave, RθJC = 0.5°C/W
Maximum surge current per leg	IFSM 2000 Amps	8.3ms, half sine, TJ = 175°C
Maximum repetitive reverse current per leg	IR(OV) 2 Amps	f = 1 KHZ, 25°C, 1 usec square wave
Max peak forward voltage per leg	VFM 0.80 Volts	IFM = 200A; TJ = 25°C*
Max peak forward voltage per leg	VFM 0.60 Volts	IFM = 200A; TJ = 175°C*
Max peak reverse current per leg	IRM 75mA	VRRM, TJ = 125°C*
Max peak reverse current per leg	IRM 4.0mA	VRRM, TJ = 25°C
Typical junction capacitance	CJ 4600pF	VR = 5.0V, TJ = 25°C

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

Thermal and Mechanical Characteristics		
Storage temp range	TSTG	-40°C to 175°C
Operation junction temp range	TJ	-40°C to 175°C
Max thermal resistance per leg	RθJC	0.5°C/W Junction to case
Typical thermal resistance	RθCS	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
center bolt must be torqued first		
Weight		2.8 ounces (75 grams) typical

**Microsemi Corp.**  
**Colorado**

# CPT20035 - CPT20050



Figure 1  
Typical Forward Characteristics - Per Leg

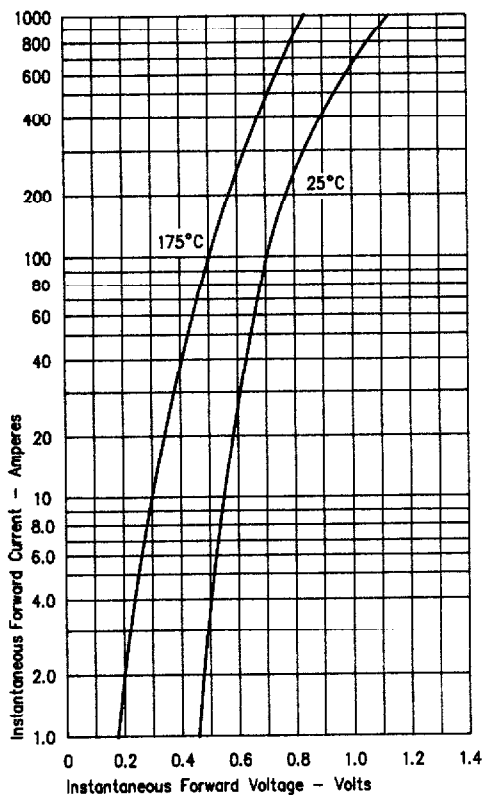


Figure 3  
Typical Junction Capacitance - Per Leg

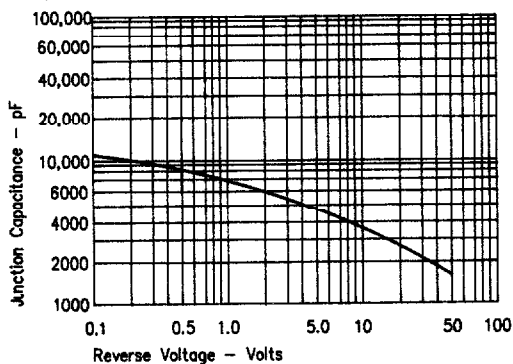


Figure 4  
Forward Current Derating - Per Leg

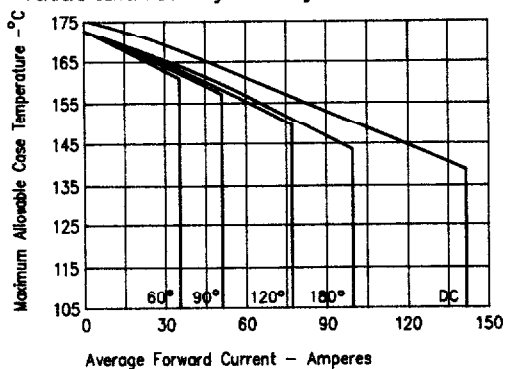


Figure 2  
Typical Reverse Characteristics - Per Leg

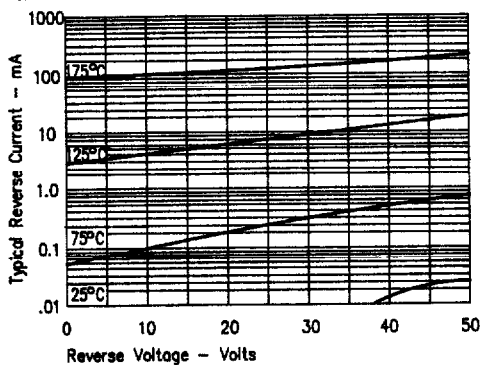


Figure 5  
Maximum Forward Power Dissipation - Per Leg

