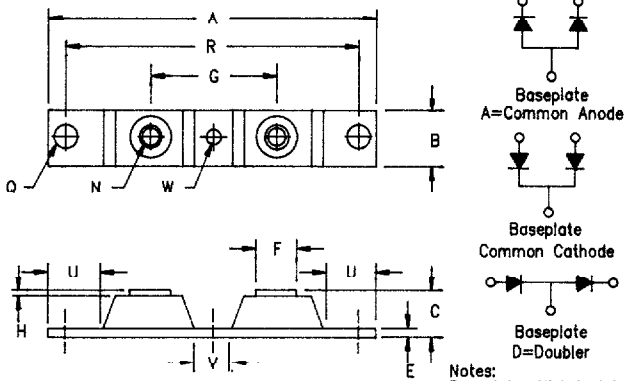


Schottky PowerMod

CPT40080, CPT40090



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 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

Notes:
Baseplate: Nickel plated copper; common cathode

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
CPT40080*	80V	80V
CPT40090*	90V	90V

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring Protection
- VRRM 90 Volts
- 175°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics		
Average forward current per pkg	$I_{F(AV)}$ 400 Amps	$T_C = 108^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.16^\circ\text{C/W}$
Average forward current per leg	$I_{F(AV)}$ 200 Amps	$T_C = 108^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.32^\circ\text{C/W}$
Maximum surge current per leg	I_{FSM} 3000 Amps	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Maximum repetitive reverse current per leg	$I_{R(OV)}$ 2 Amps	$f = 1 \text{ KHZ}$, 25°C , 1 usec square wave
Max peak forward voltage per leg	V _{FM} .91 Volts	I _{FM} = 200A; T _J = 25°C*
Max peak forward voltage per leg	V _{FM} .72 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 4800 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 _{θJC}	0.32°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 (78.3 grams) typical

Microsemi Corp.
Colorado

CPT40080, CPT40090

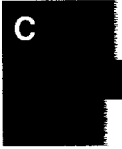


Figure 1
Typical Forward Characteristics - Per Leg

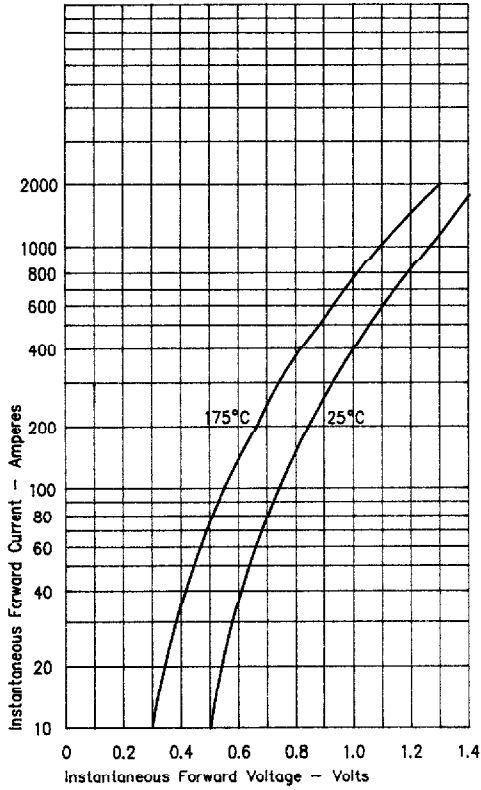


Figure 3
Typical Junction Capacitance - Per Leg

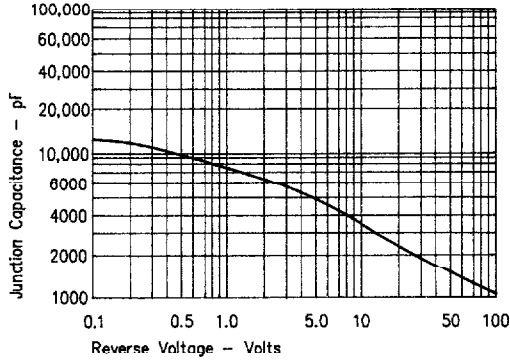


Figure 4
Forward Current Derating - Per Leg

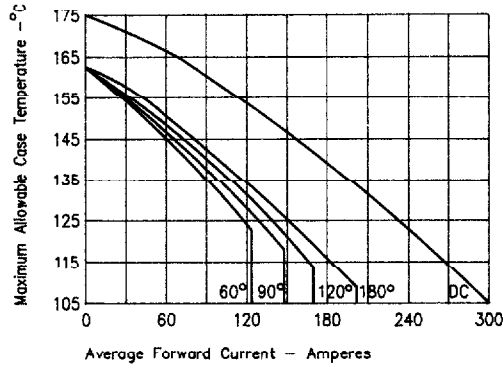


Figure 2
Typical Reverse Characteristics - Per Leg

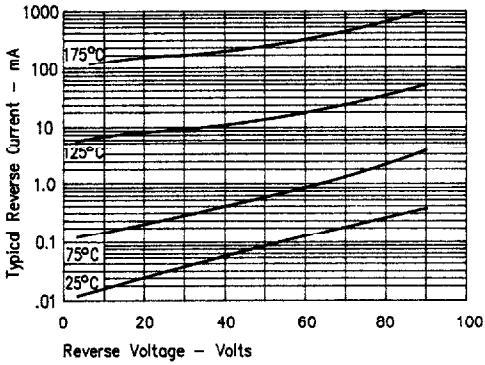


Figure 5
Maximum Forward Power Dissipation - Per Leg

