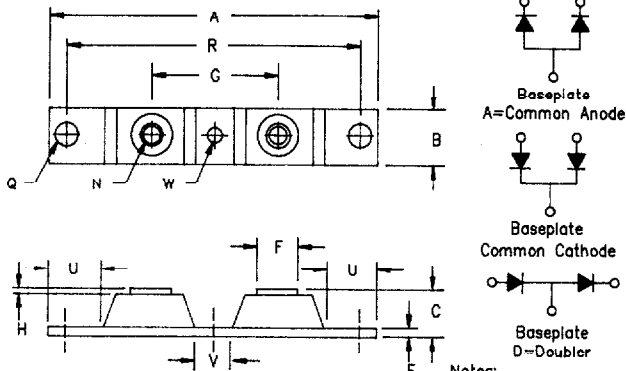


Schottky PowerMod CPT50060



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
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.

Notes:
Baseplate: Nickel plated copper; common cathode

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
CPT50060*	60V	60V

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring Protection
- VRRM 60 Volts
- 175°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics

Average forward current per pkg	$I_{F(AV)}$ 500 Amps	$T_C = 132^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.12^\circ\text{C/W}$
Average forward current per leg	$I_{F(AV)}$ 250 Amps	$T_C = 132^\circ\text{C}$, Square wave, $R_{\theta JC} = 0.24^\circ\text{C/W}$
Maximum surge current per leg	I_{FSM} 5000 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 μsec square wave
Max peak forward voltage per leg	V_{FM} 0.73 Volts	$I_{FM} = 250\text{A}$; $T_J = 25^\circ\text{C}$
Max peak forward voltage per leg	V_{FM} 0.58 Volts	$I_{FM} = 250\text{A}$; $T_J = 175^\circ\text{C}$
Max peak reverse current per leg	I_{RM} 200 mA	V_{RRM} , $T_J = 125^\circ\text{C}$ *
Max peak reverse current per leg	I_{RM} 0.0 mA	V_{RRM} , $T_J = 25^\circ\text{C}$
Typical junction capacitance	C_J 8800 pF	$V_R = 5.0\text{V}$, $T_C = 25^\circ\text{C}$

*Pulse test: Pulse width 300 μsec , 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	$R_{\theta JC}$	0.24°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)		10 inch pounds maximum
Weight		2.8 ounces (78.3 grams) typical

Microsemi Corp.
Colorado

CPT50060



Figure 1
Typical Forward Characteristics - Per Leg

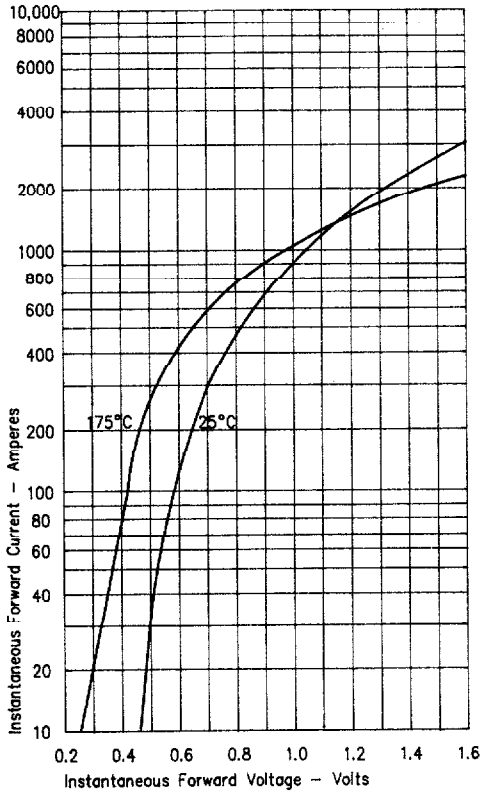


Figure 3
Typical Junction Capacitance - Per Leg

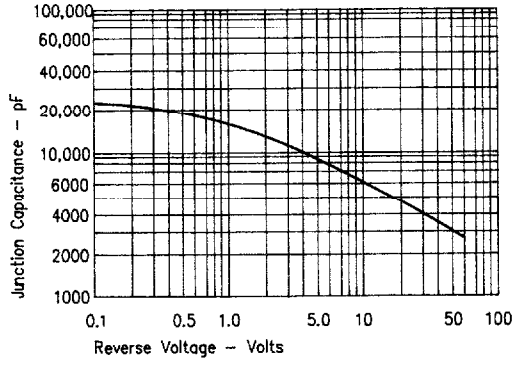


Figure 4
Forward Current Derating - Per Leg

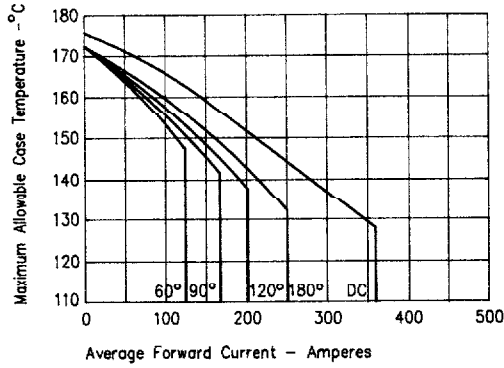


Figure 2
Typical Reverse Characteristics - Per Leg

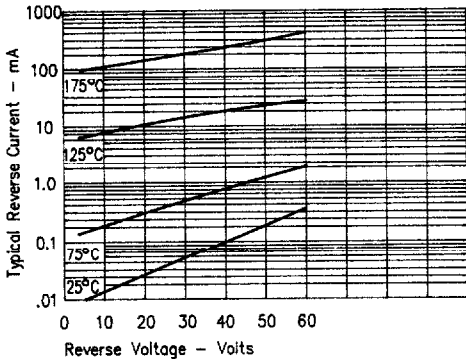


Figure 5
Maximum Forward Power Dissipation - Per Leg

