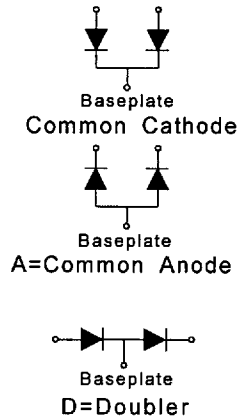
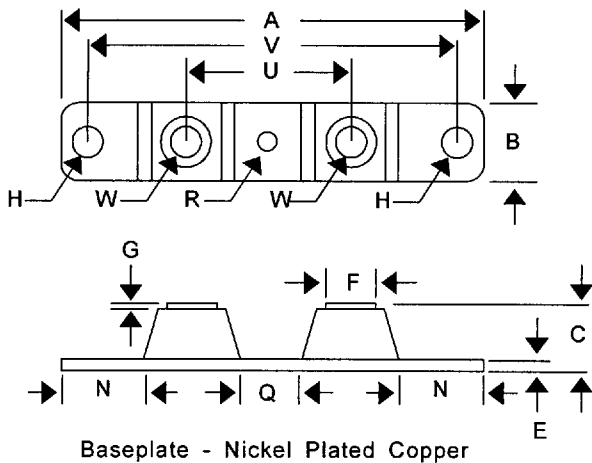




**INTERNATIONAL  
SEMICONDUCTOR, Inc.  
SCHOTTKY POWER MODULE**

**CPT40080  
and  
CPT40090**



	DIMENSIONS				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
A		3.630		92.2	
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	0.010		0.25		
H	0.275	0.290	6.99	7.37	Dia
N	0.600		15.24		
Q	0.312	0.340	7.92	8.64	
R	0.180	0.195	4.57	4.95	Dia
U	1.375	BSC	34.92	BSC	
V	3.150	BSC	80.01	BSC	
W					1/4-28

Baseplate - Nickel Plated Copper

ISI Part #	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
CPT40080	80 Volts	80 Volts
CPT40090	90 Volts	90 Volts

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

- Schottky Barrier Rectifier
- Guard Ring for Reverse Protection
- Common Cathode Center Tap
- 400 Amperes/ $V_{RRM}$  80 and 90 Volts
- 175°C Junction Temperature
- Reverse Energy Tested

**Electrical Characteristics**

Average Forward Current Per Package	$I_{F(AV)}$	400 Amps	$T_c=108^\circ\text{C}$ , Square Wave, $R_{\theta JC}=0.16^\circ\text{C/W}$ $T_c=108^\circ\text{C}$ , Square Wave, $R_{\theta JC}=0.32^\circ\text{C/W}$ 8.3 ms, Half Wave, $T_J=175^\circ\text{C}$ $f=1\text{ KHz}$ , $25^\circ\text{C}$ , 1 usec Square Wave $I_{FM}=200\text{ Amps}$ , $T_J=125^\circ\text{C}$ $I_{FM}=200\text{ Amps}$ , $T_J=25^\circ\text{C}$ $V_{RRM}$ , $T_J=125^\circ\text{C}$ $V_{RRM}$ , $T_J=25^\circ\text{C}$ $V_R=5.0\text{ Volts}$ , $T_J=25^\circ\text{C}$
Average Forward Current Per Leg	$I_{F(AV)}$	200 Amps	
Maximum Surge Current Per Leg	$I_{FSM}$	3000 Amps	
Max. Repetitive Reverse Current Per Leg	$I_{R(OV)}$	2 Amps	
Maximum Peak Forward Voltage Per Leg	$V_{FM}$	0.91 Volts	
Maximum Peak Forward Voltage Per Leg	$V_{FM}$	0.72 Volts	
Maximum Peak reverse Current Per Leg	$I_{RM}$	100 mA	
Maximum Peak reverse Current Per Leg	$I_{RM}$	5.0 mA	
Typical Junction Capacitance	$C_J$	4800 pf	

**Thermal And Mechanical Characteristics**

Storage Temperature Range	$T_{STG}$	-40°C to +175°C
Operation Junction Temp. Range	$T_J$	-40°C to +175°C
Max. Thermal Resistance Per Leg	$R_{\theta JC}$	0.32 °C/W Junction to Case
Typical Thermal Resistance	$R_{\theta JC}$	0.08 °C/W Case to Heat 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 Tightened First		
Weight		2.8 ounces (75 grams) typical

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Fax: (908) 245-5541

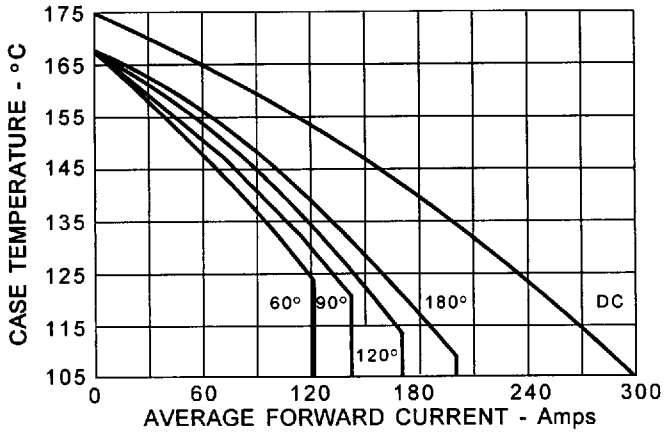
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# SCHOTTKY BARRIER POWER MODULES

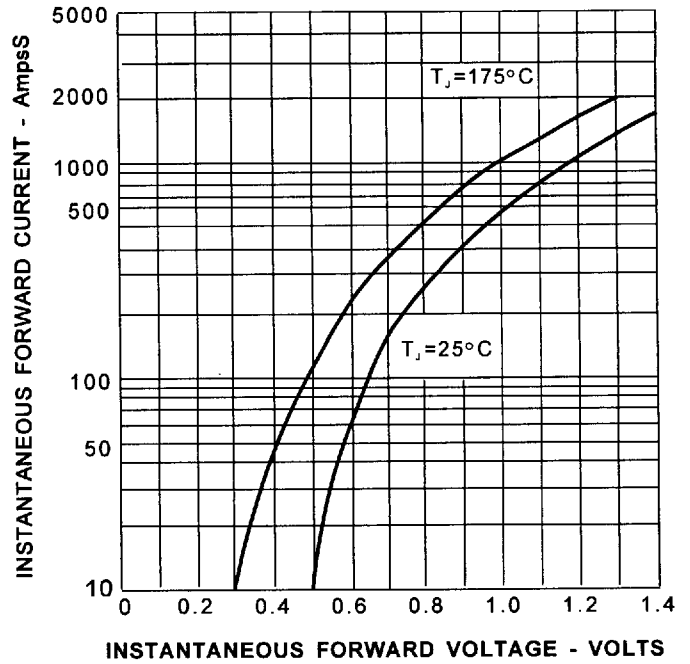
## CPT40080 and CPT40090

### RATING AND CHARACTERISTIC CURVES

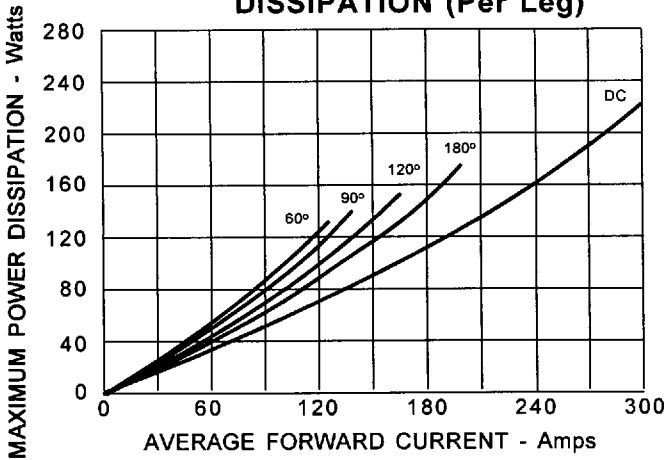
**FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE**



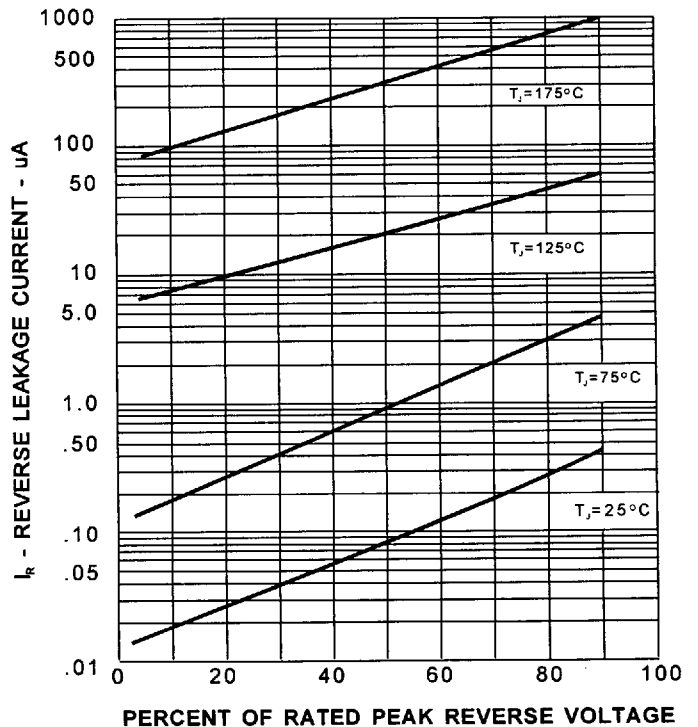
**FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



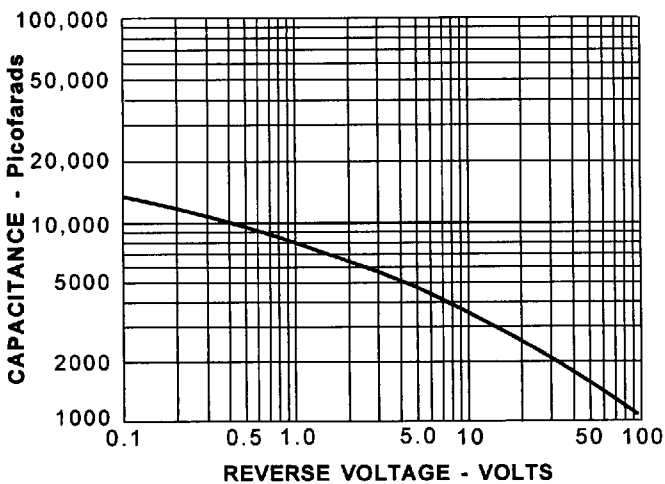
**FIG. 2 - MAXIMUM FORWARD POWER DISSIPATION (Per Leg)**



**FIG. 5 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 3 - TYPICAL JUNCTION CAPACITANCE**



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