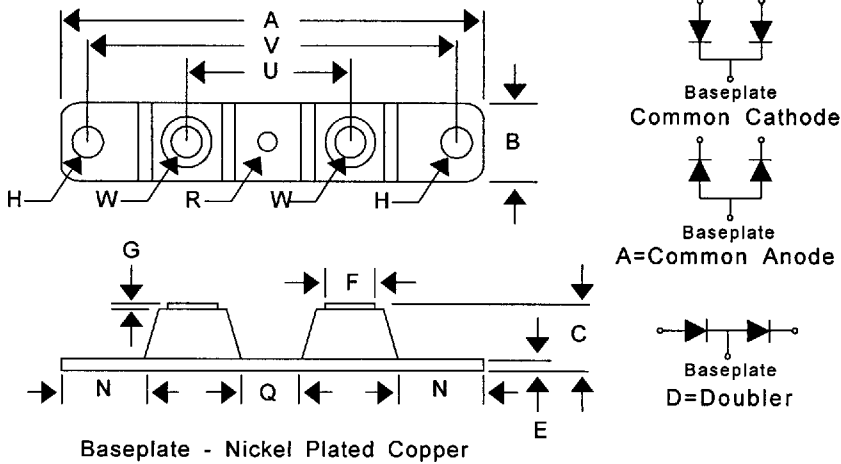




**INTERNATIONAL
SEMICONDUCTOR, INC.
SCHOTTKY POWER MODULE**

**CPT40035
thru
CPT40050**



	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
CPT40035*	35 Volts	35 Volts
CPT40040	40 Volts	40 Volts
CPT40045	45 Volts	45 Volts
CPT40050	50 Volts	50 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} 35 to 50 Volts
- 175°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics

Average Forward Current Per Package	$I_{F(AV)}$	400 Amps	$T_c=127^\circ\text{C}$, Square Wave, $R_{\theta JC}=0.16^\circ\text{C/W}$ $T_c=136^\circ\text{C}$, Square Wave, $R_{\theta JC}=0.32^\circ\text{C/W}$ 8.3 ms, Half Wave, $T_J=175^\circ\text{C}$ $f=1$ KHz, 25°C , 1 usec Square Wave $I_{FM}=200$ Amps, $T_J=125^\circ\text{C}$ $I_{FM}=200$ Amps, $T_J=25^\circ\text{C}$ V_{RRM} , $T_J=125^\circ\text{C}$ V_{RRM} , $T_J=25^\circ\text{C}$ $V_R=5.0$ 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}	0.78 Volts	
Maximum Peak Forward Voltage Per Leg	V_{FM}	0.62 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	7200 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	$R_{\theta JC}$	0.40 °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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SCHOTTKY BARRIER POWER MODULES

CPT40035 thru CPT40050

RATING AND CHARACTERISTIC CURVES

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

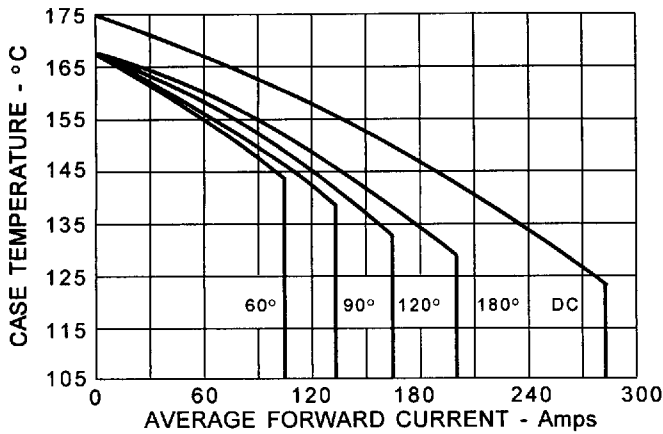


FIG. 2 - MAXIMUM FORWARD POWER DISSIPATION (Per Leg)

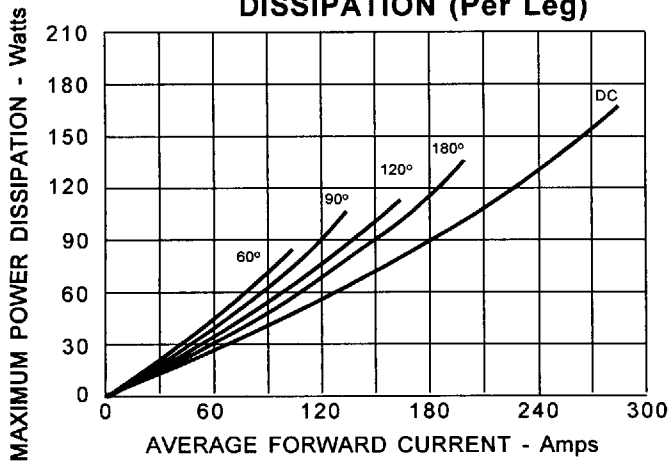


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

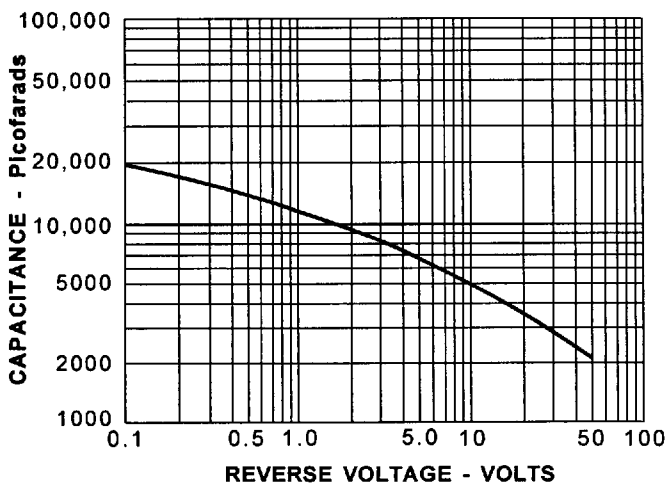


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

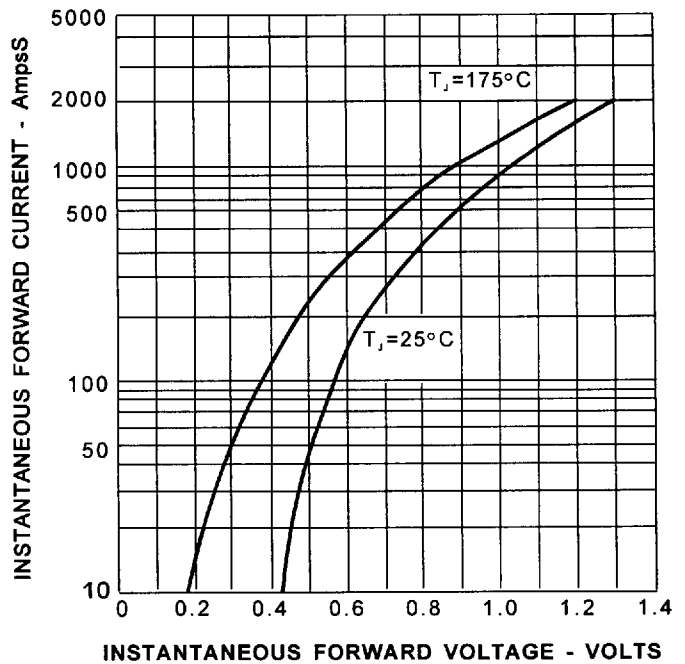
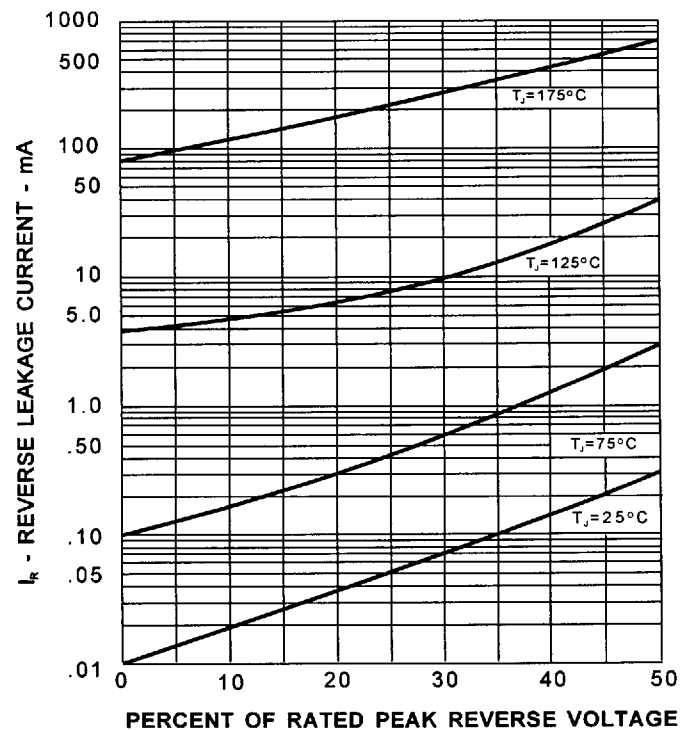


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



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