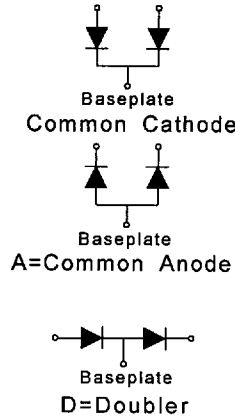
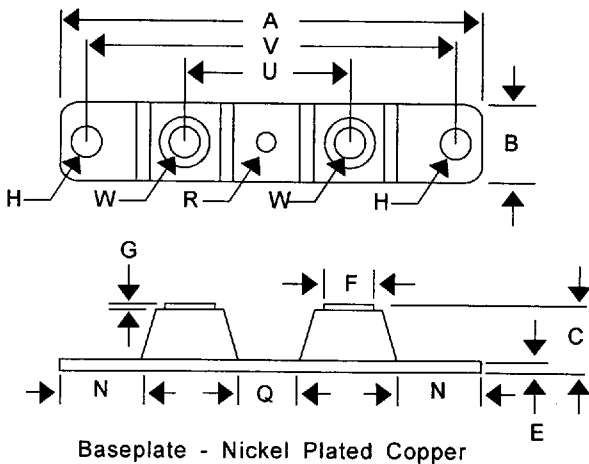




**INTERNATIONAL
SEMICONDUCTOR, INC.
SCHOTTKY POWER MODULE**

**CPT12035
thru
CPT12050**



	DIMENSIONS				Notes
	Inches		Millimeters		
	Min	Max	Min	Max	
A		3.630	17.78	92.2	
B	0.700	0.800	20.32	20.32	
C		0.625	15.87	15.87	
E	0.120	0.130	3.05	3.30	
F	0.490	0.510	12.45	12.95	Dia
G		0.050	1.27	1.27	
H	0.280	0.310	6.86	7.11	Dia
N	0.600		15.24	15.24	
Q	0.330	0.350	8.38	8.89	Dia
R	0.170	0.190	4.32	4.82	
U	1.375	BSC	34.92	BSC	1/4-28
V	3.150	BSC	80.01	BSC	
W					

ISI Part #	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
CPT12035*	35 Volts	35 Volts
CPT12040	40 Volts	40 Volts
CPT12045	45 Volts	45 Volts
CPT12050	50 Volts	50 Volts

*Add Suffix A for Common Anode, D for Doubler

- Schottky Barrier Rectifier
- Guard Ring for Reverse Protection
- V_{RRM} 35 to 50 Volts
- 175°C Junction Temperature
- Reverse Energy Tested

Electrical Characteristics

Average Forward Current Per Package	$I_{F(AV)}$	120 Amps	$T_c=140^\circ\text{C}$, Square Wave, $R_{\theta JC}=0.425^\circ\text{C/W}$
Average Forward Current Per Leg	$I_{F(AV)}$	60 Amps	$T_c=140^\circ\text{C}$, Square Wave, $R_{\theta JC}=0.85^\circ\text{C/W}$
Maximum Surge Current Per Leg	I_{FSM}	1000 Amps	8.3 ms, Half Wave, $T_J=175^\circ\text{C}$
Max. Repetitive Reverse Current Per Leg	$I_{R(DV)}$	2 Amps	$f=1\text{ KHz}$, 25°C , 1 usec Square Wave
Maximum Peak Forward Voltage Per Leg	V_{FM}	0.63 Volts	$I_{FM}=120\text{ Amps}$, $T_J=125^\circ\text{C}$
Maximum Peak Forward Voltage Per Leg	V_{FM}	0.80 Volts	$I_{FM}=120\text{ Amps}$, $T_J=25^\circ\text{C}$
Maximum Peak reverse Current Per Leg	I_{RM}	40 mA	V_{RRM} , $T_J=125^\circ\text{C}$
Maximum Peak reverse Current Per Leg	I_{RM}	3 mA	V_{RRM} , $T_J=25^\circ\text{C}$
Typical Reverse Current Per Leg	I_{RM}	25 μA	V_{RRM} , $T_J=25^\circ\text{C}$
Typical Junction Capacitance	C_J	2700 pf	$V_R=5.0\text{ Volts}$, $T_J=25^\circ\text{C}$

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	$R_{\theta JC}$	0.85 °C/W Junction to Case
Max. Thermal Resistance Per Package	$R_{\theta JC}$	0.425 °C/W Junction to Case
Typical Thermal Resistance Per Leg	$R_{\theta JC}$	0.80 °C/W Junction to Case
Terminal Torque	$R_{\theta JC}$	0.08 °C/W Case to Heat Sink
Mounting Base Torque (Outside Holes)		50 inch-pounds maximum
Mounting Base Torque (Center Hole)		40 inch-pounds maximum
Center Bolt Must Be Tightened First		10 inch-pounds maximum
Weight		2.8 ounces (75 grams) typical

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SCHOTTKY BARRIER POWER MODULES

CPT12035 thru CPT12050

RATING AND CHARACTERISTIC CURVES

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

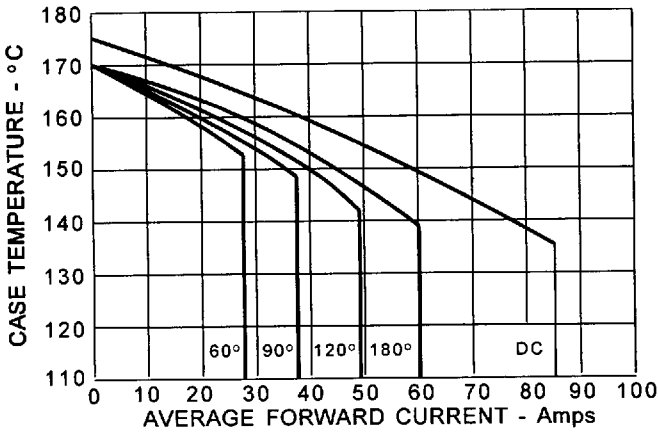


FIG. 2 - MAXIMUM FORWARD POWER DISSIPATION (Per Leg)

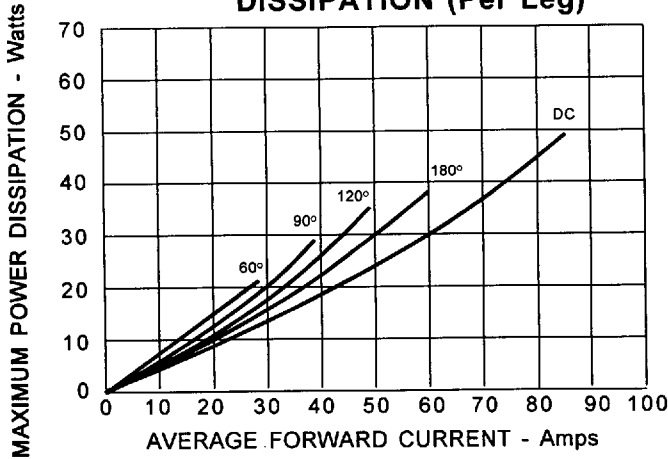


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

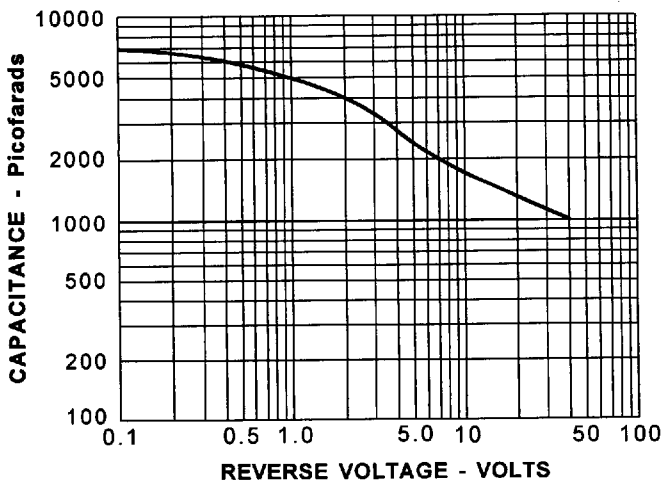


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

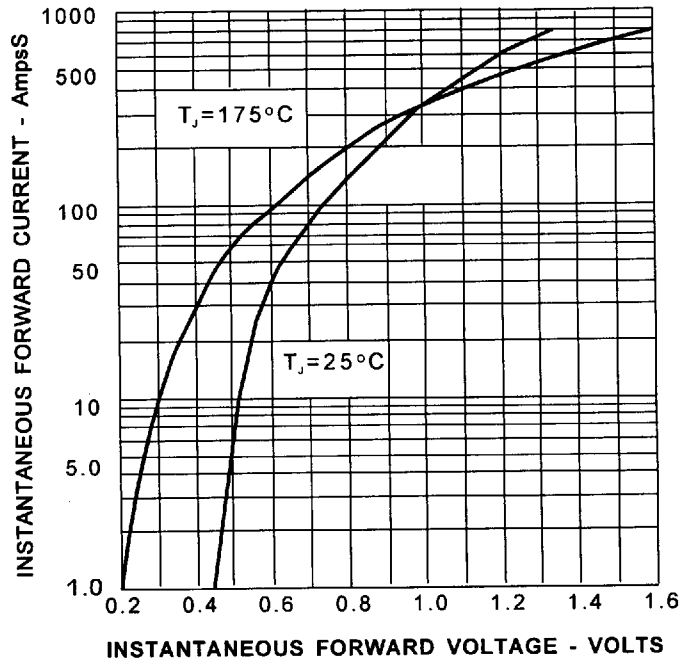
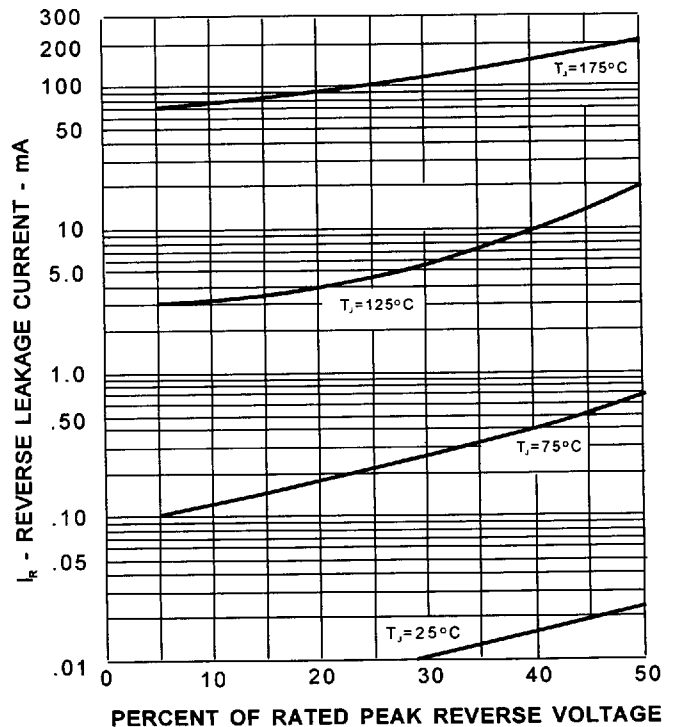


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS



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