



Micro Commercial Components
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CPT30035 THRU CPT30090

Features

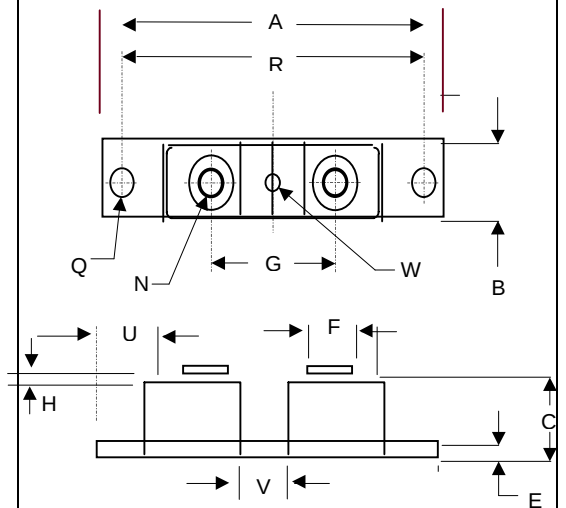
- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
CPT30035	35V	24.5V	35V
CPT30040	40V	28 V	30V
CPT30045	45V	31.5V	45V
CPT30050	50V	35 V	50V
CPT30060	60V	42 V	60V
CPT30080	80V	56 V	80V
CPT30090	90V	63 V	90V

Power Mod (Twin Tower)



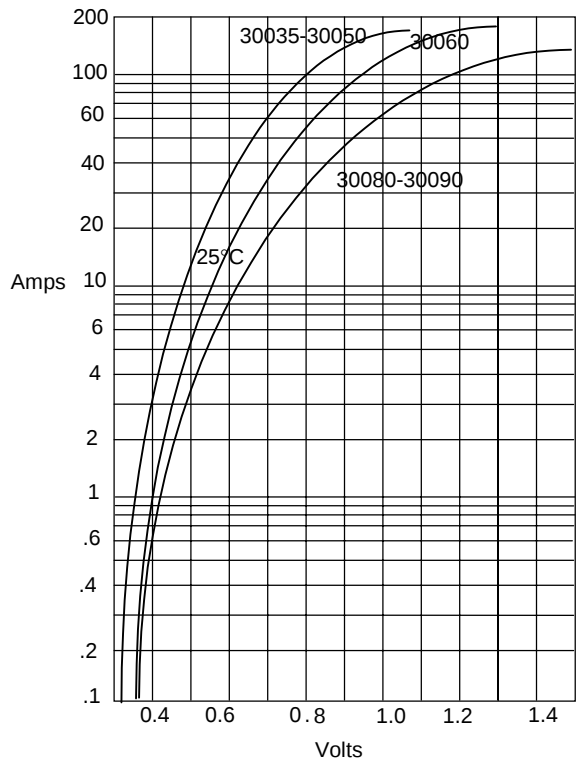
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	300 A	$T_L = 136^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	2000A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 30035-30050 30060 30080-30090	V_F	.70 V .82 V .98 V	$I_{FM} = 150 \text{ A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	4 mA	$T_A = 25^\circ\text{C}$
Typical Junction Capacitance	C_J	4600pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

DIMENSIONS					
DIM	INCH ES		MM		NOTE
	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
Q	0.275	0.290	6.99	7.37	Did
R	3.150	BSC	80.01	BSC	
U	.600	---	15.24	---	
V	.312	.340	7.92	8.64	
W	.180	.195	4.57	4.95	Did

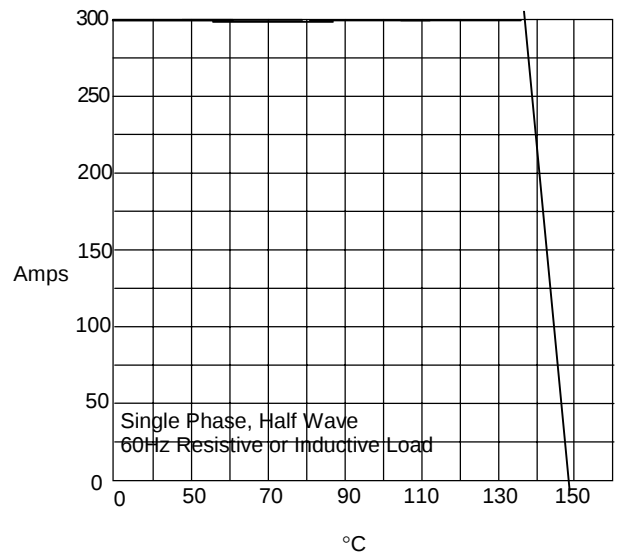
*Pulse Test: Pulse Width 300µsec, Duty Cycle 1%

Figure 1
Typical Forward Characteristics



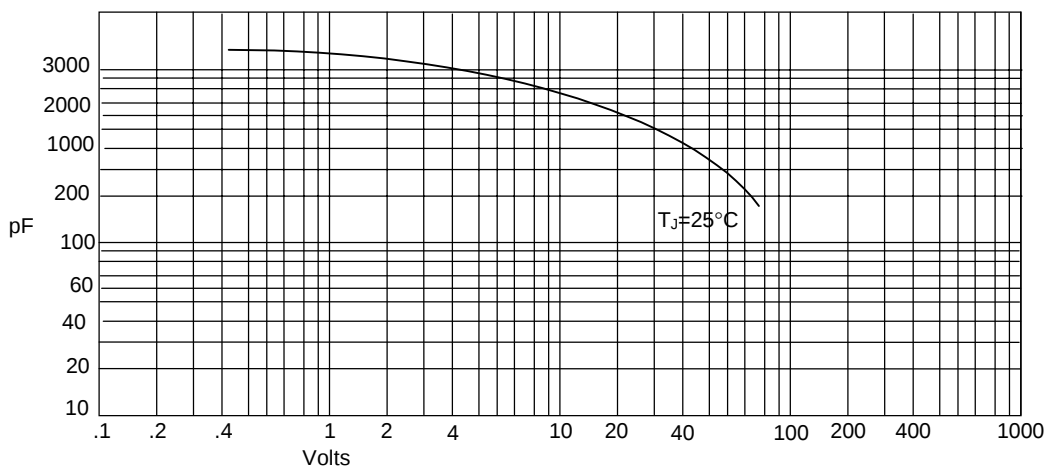
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

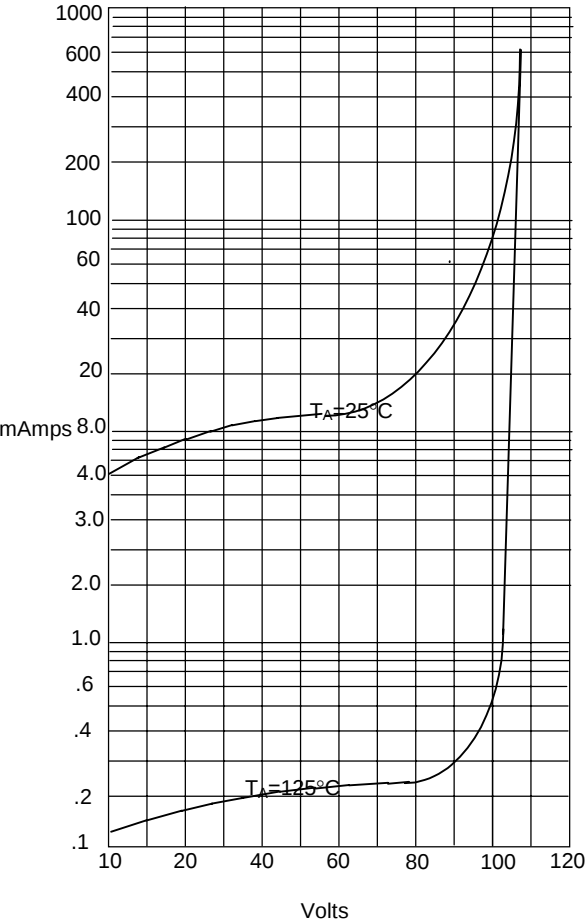
Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

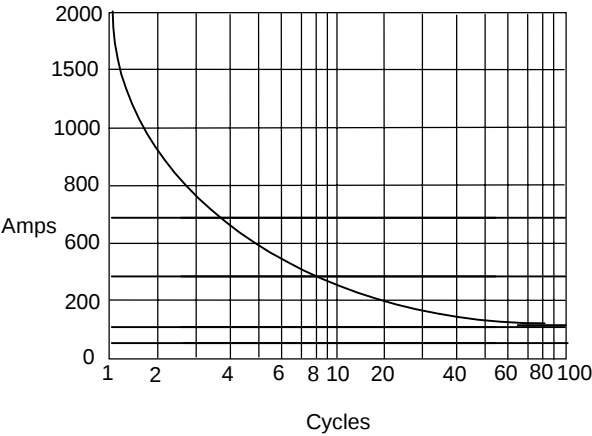


Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles