

SCHOTTKY DIODES MODULE TYPE 500A

Features

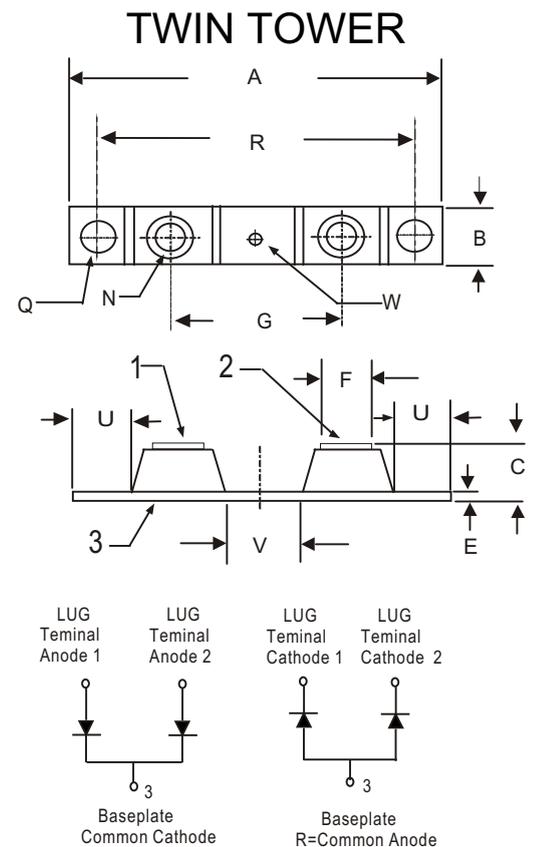
High Surge Capability
Types Up to 45V V_{RRM}

**500Amp Rectifier
20-45 Volts**

Maximum Ratings

Operating Temperature: -40°C to $+175^{\circ}\text{C}$
Storage Temperature: -40°C to $+175^{\circ}\text{C}$

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR50020CT(R)	20V	14V	20V
MBR50030CT(R)	30V	21V	30V
MBR50035CT(R)	35V	25V	35V
MBR50040CT(R)	40V	28V	40V
MBR50045CT(R)	45V	32V	45V



Electrical Characteristics @ 25 °C Unless Otherwise Specified

Average Forward Current (Per pkg)	$I_{F(AV)}$	500A	$T_C = 130^{\circ}\text{C}$
Peak Forward Surge Current (Per leg)	I_{FSM}	3500A	8.3ms, half sine
Maximum Instantaneous Forward Voltage (Per leg) NOTE (1)	V_F	0.65V	$I_{FM} = 250\text{A}; T_J = 25^{\circ}\text{C}$
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage (Per leg) NOTE (1)	I_R	8.0 mA 200 mA	$T_J = 25^{\circ}\text{C}$ $T_J = 125^{\circ}\text{C}$
Maximum Thermal Resistance Junction To Case (Per leg)	$R_{\theta jc}$	0.8°C/W	

DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	----	3.360	----	92.20	
B	0.700	0.800	17.78	20.32	
C	----	0.650	----	16.51	
E	0.120	0.130	3.05	3.30	
F	0.490	0.510	12.45	12.95	
G	1.379 BSC		35.02 BSC		
H	----	----	----	----	
N	1/4	- 20	UNC	FULL	
Q	0.275	0.290	6.99	7.37	2 PL
R	3.150 BSC		80.01 BSC		
U	0.600	----	15.24	----	
V	0.312	0.370	7.92	9.40	
W	0.180	0.195	4.57	4.95	

NOTE :

(1) Pulse Test: Pulse Width 300 usec, Duty Cycle < 2%

Figure .1-Typical Forward Characteristics

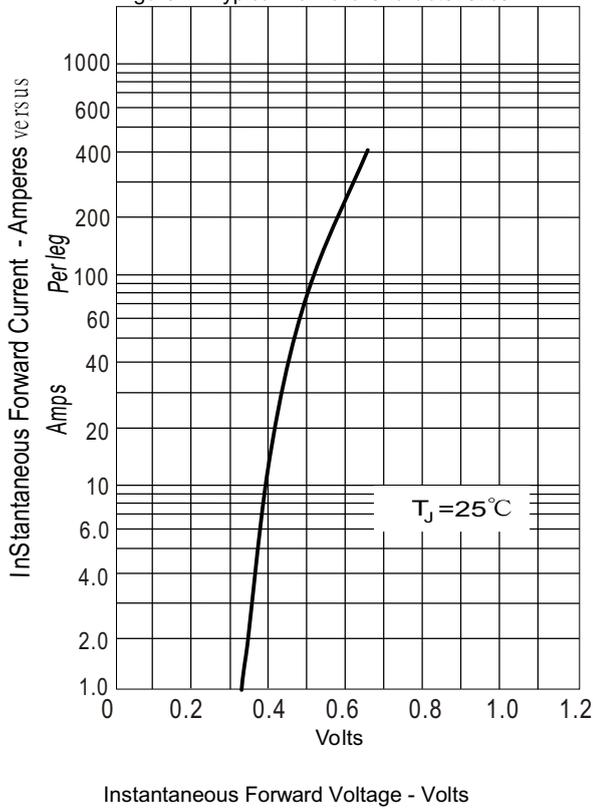


Figure .2-Forward Derating Curve

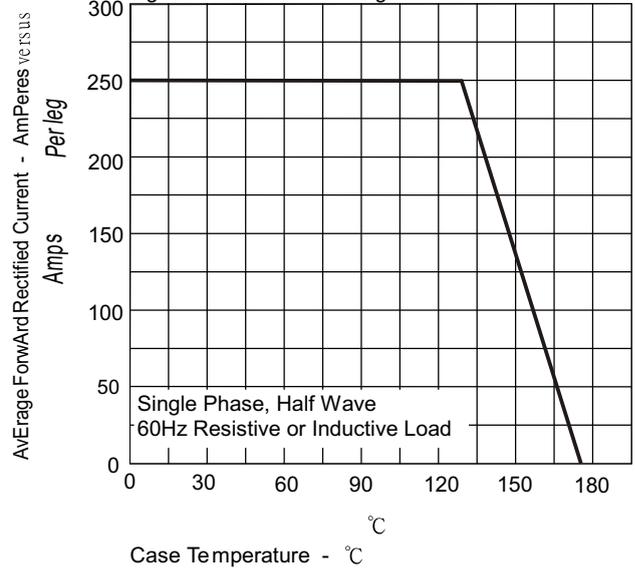


Figure .3-Peak Forward Surge Current

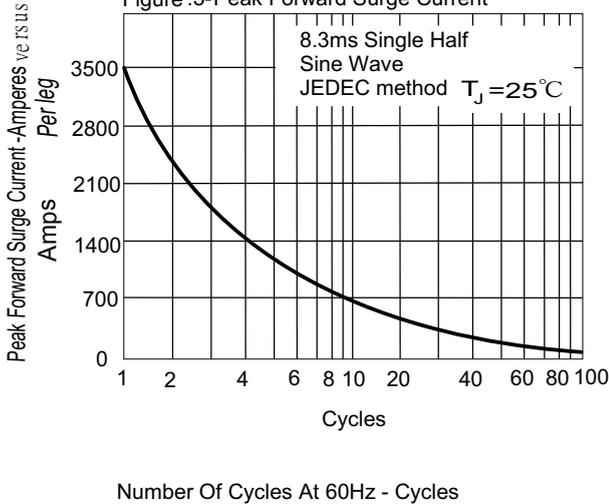


Figure .4-Typical Reverse Characteristics

