

SCHOTTKY DIODES MODULE TYPE 300A

Features

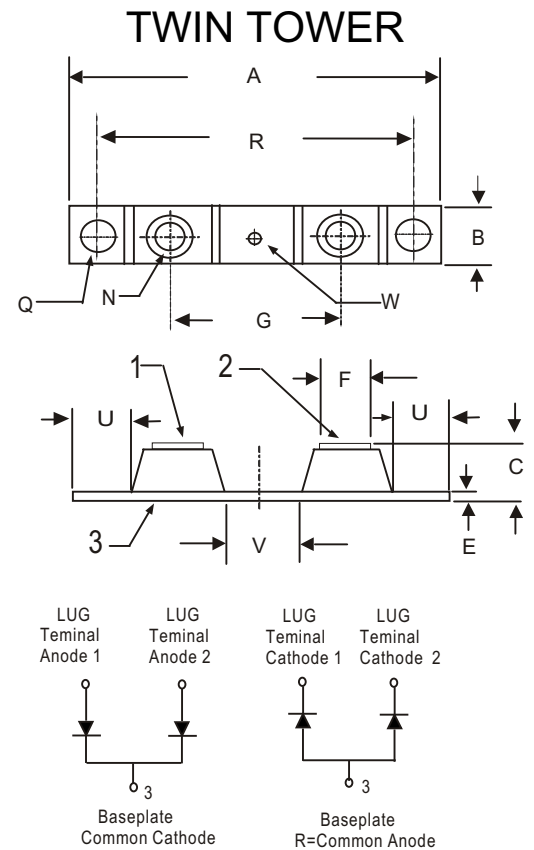
High Surge Capability
Types Up to 100V V_{RRM}

**300Amp Rectifier
20-100 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
MBR30020CT(R)	20V	14V	20V
MBR30030CT(R)	30V	21V	30V
MBR30035CT(R)	35V	25V	35V
MBR30040CT(R)	40V	28V	40V
MBR30045CT(R)	45V	32V	45V
MBR30060CT(R)	60V	42V	60V
MBR30080CT(R)	80V	56V	80V
MBR300100CT(R)	100V	70V	100V



Electrical Characteristics @ 25 °C Unless Otherwise Specified

Average Forward Current (Per pkg)	$I_{F(AV)}$	300A	$T_C = 140^{\circ}\text{C}$
Peak Forward Surge Current (Per leg)	I_{FSM}	2500A	8.3ms, half sine
Maximum Instantaneous Forward Voltage (Per leg) NOTE (1)	V_F	0.65V 0.75V 0.84V	(MBR30020CT-MBR30045CT) (MBR30060CT) (MBR30080CT-MBR300100CT) $I_{FM} = 150\text{A}; T_j = 25^{\circ}\text{C}$
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage (Per leg)	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%

MBR30020CT(R) THRU MBR300100CT(R)

Figure .1-Typical Forward Characteristics

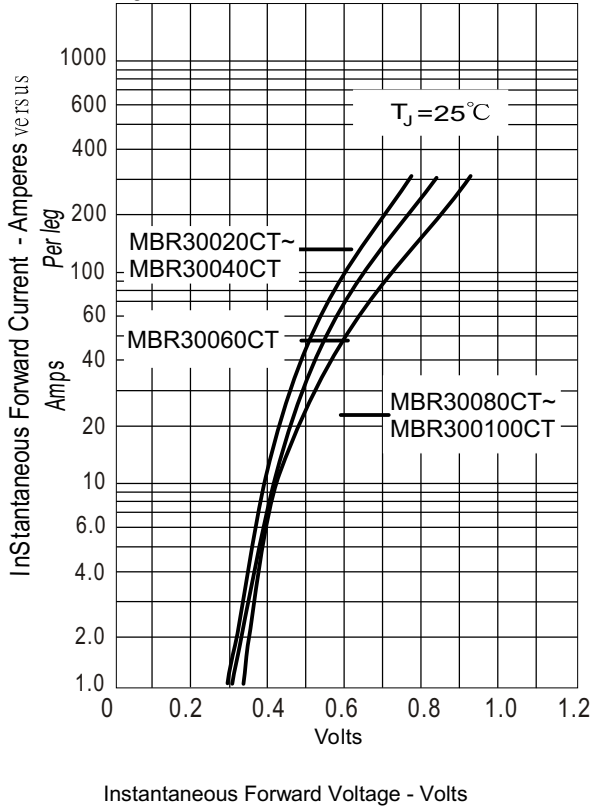


Figure .2-Forward Derating Curve

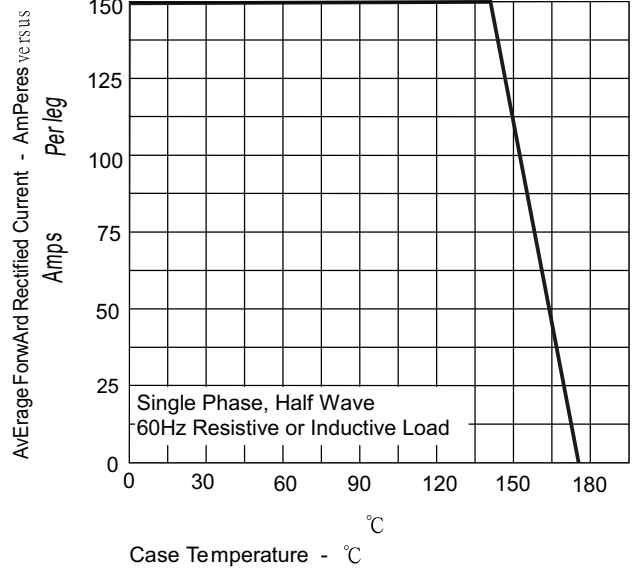


Figure .3- Peak Forward Surge Current

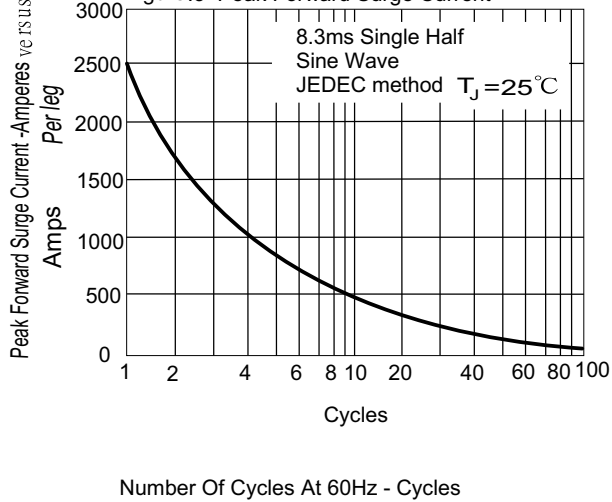


Figure .4- Typical Reverse Characteristics

