



SCHOTTKY DIODE MODULE TYPES 500A

Features

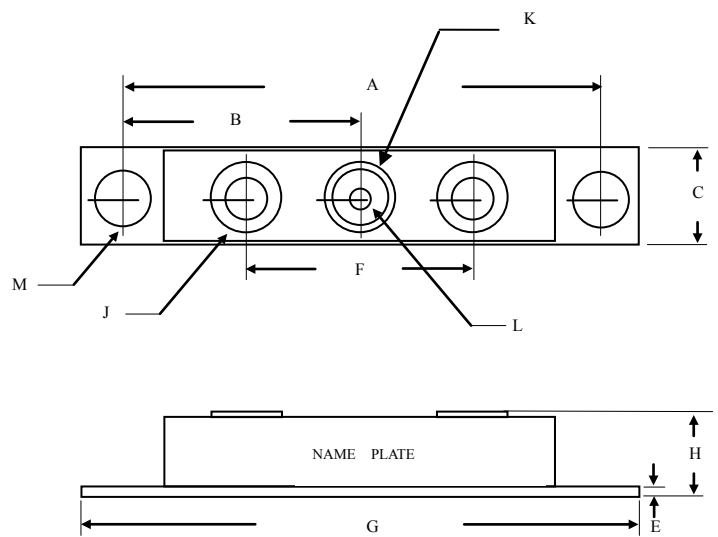
High Surge Capability
Types Up to 100V V_{RRM}

500 Amp Rectifier
20-100 Volts

Maximum Ratings

Operating Temperature: -55°C to $+150^{\circ}\text{C}$
Storage Temperature: -55°C to $+150^{\circ}\text{C}$

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRF50020(R)	20V	14V	20V
MBRF50030(R)	30V	21V	30V
MBRF50035(R)	35V	25V	35V
MBRF50040(R)	40V	28V	40V
MBRF50045(R)	45V	32V	45V
MBRF50060(R)	60V	42V	60V
MBRF50080(R)	80V	57V	80V
MBRF500100(R)	100V	70V	100V



Electrical Characteristics @ 25 °C Unless Otherwise Specified

Average Forward Current (Per pkg)	$I_{F(AV)}$	500A	$T_C=125^{\circ}\text{C}$
Peak Forward Surge Current (Per leg)	I_{FSM}	3500A	8.3ms, half sine
Maximum Instantaneous Forward Voltage (Per leg)	V_F	0.75V 0.78V 0.84V	$I_{FM}=250\text{ A}; T_J=25^{\circ}\text{C}$
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage (Per leg)	I_R	1mA 10mA 50mA	$T_J=25^{\circ}\text{C}$ $T_J=100^{\circ}\text{C}$ $T_J=150^{\circ}\text{C}$
Maximum Thermal Resistance Junction To Case (Per leg)	$R_{\theta jc}$	0.30°C/W	

DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	3.144	NOM	79.85	NOM
B	1.565	1.585	39.75	40.26
C	0.700	0.800	17.78	20.32
E	0.119	0.14	3.02	3.50
F	1.358	REF.	34.50	REF.
G	3.55	3.65	90.17	92.71
H	0.604	0.65	15.35	16.51
J	1/4-20 UNC FULL			
K	0.380	0.410	9.65	10.41
L	0.185	0.195	4.70	4.95
M	0.275	0.295	6.99	7.49

NOTE :

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



Figure .1- Typical Forward Characteristics

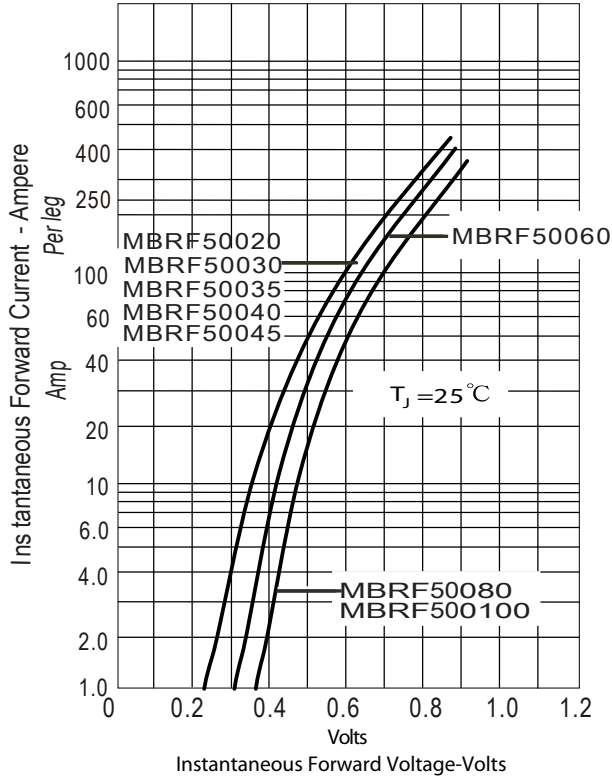


Figure .2- Forward Derating Curve

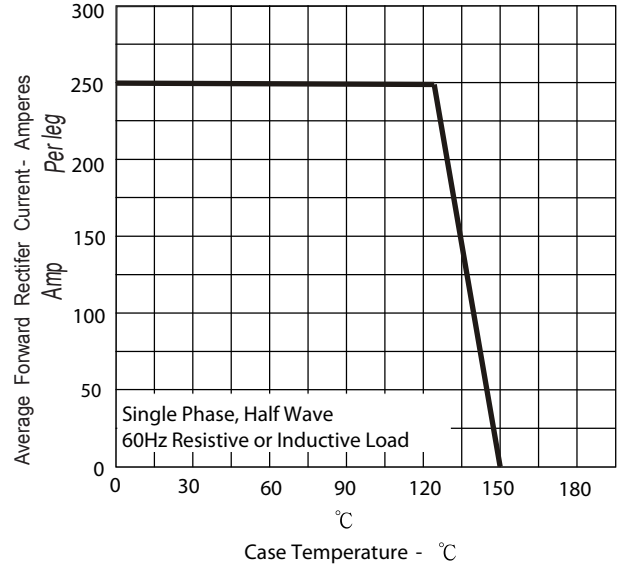


Figure.3-Peak Forward Surge Current

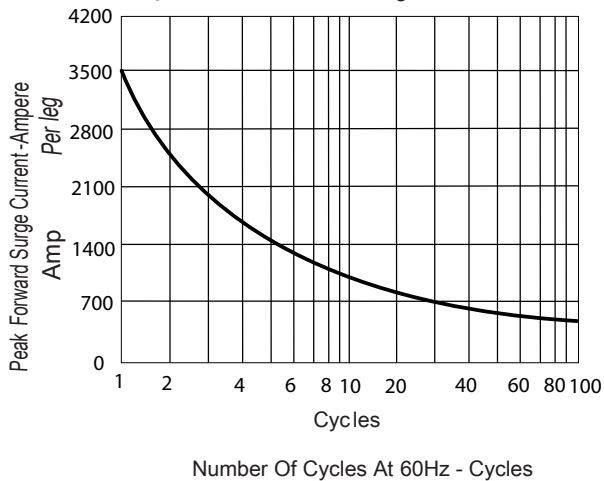


Figure .4- Typical Reverse Characteristics

