

SCHOTTKY DIODES MODULE TYPE 500A

Features

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

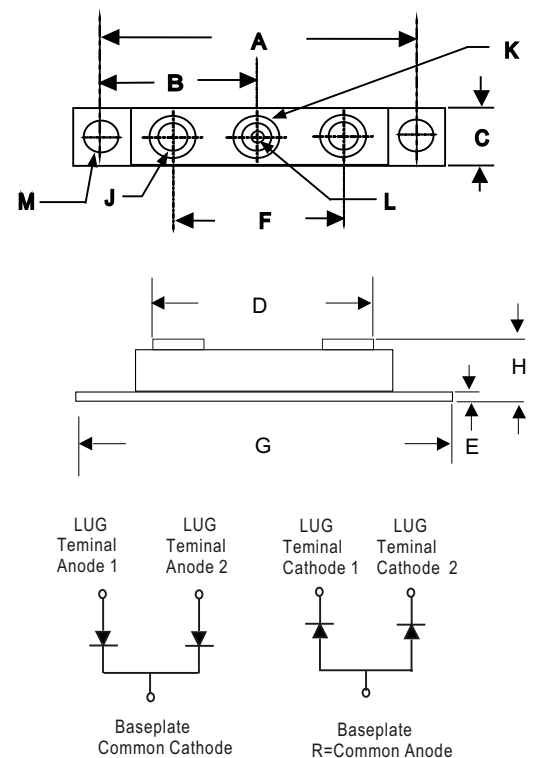
**500Amp Rectifier
20-45 Volts**

FULL PACKAGE

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
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



Electrical Characteristics @ 25°C Unless Otherwise Specified

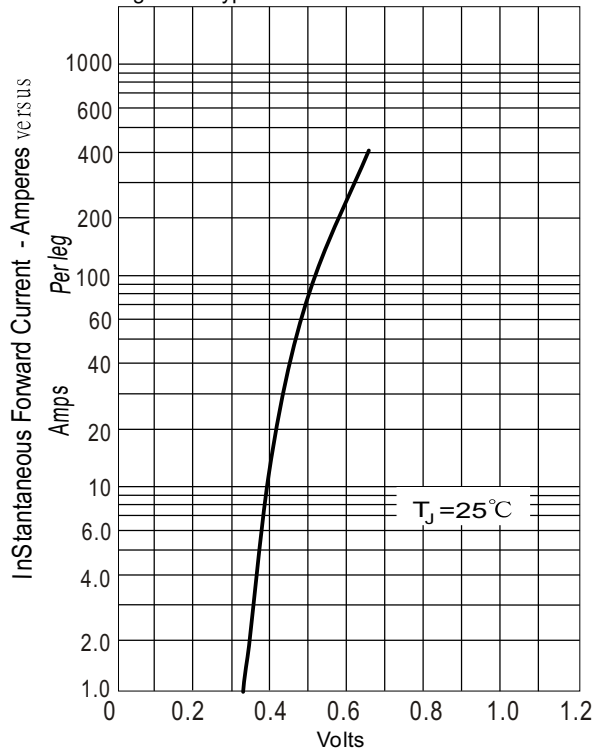
Average Forward Current (Per pkg)	$I_{F(AV)}$	500A	$T_C = 130^{\circ}\text{C}$
Peak Forward Surge Current (Per leg)	I_{FSM}	3500A	8.3ms, half sine
Maximum Instantaneous Forward Voltage (Per leg) NOTE (1)	V_F	0.65V	$I_{FM} = 250\text{A}; T_J = 25^{\circ}\text{C}$
Maximum Instantaneous Reverse Current 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 $^{\circ}\text{C}/\text{W}$	

NOTE :

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

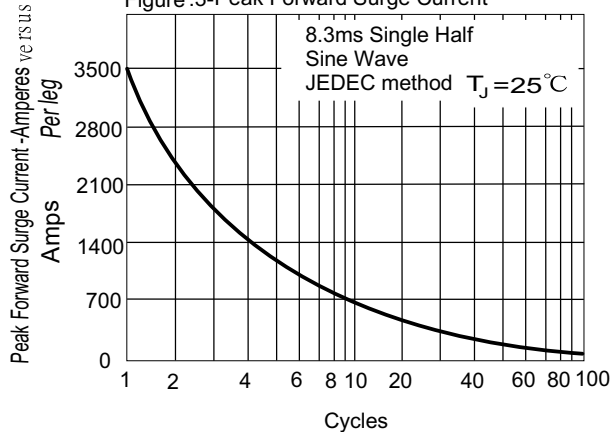
DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	3.150	NOM	80.01	NOM	
B	1.565	1.585	39.75	40.26	
C	.700	.800	17.78	20.32	
E	.119	.132	3.02	3.35	
F	1.375	REF	34.92	REF	
G	3.55	3.65	90.17	92.71	
H	.604	.635	15.35	16.35	
J	1/4	- 20	UNC	FULL	
K	.380	.410	9.65	10.41	$\varnothing$
L	.185	.195	4.70	4.95	$\varnothing$
M	.275	.295	6.99	7.49	$\varnothing$

Figure .1-Typical Forward Characteristics



Instantaneous Forward Voltage - Volts

Figure .3-Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles

Figure .2- Forward Derating Curve

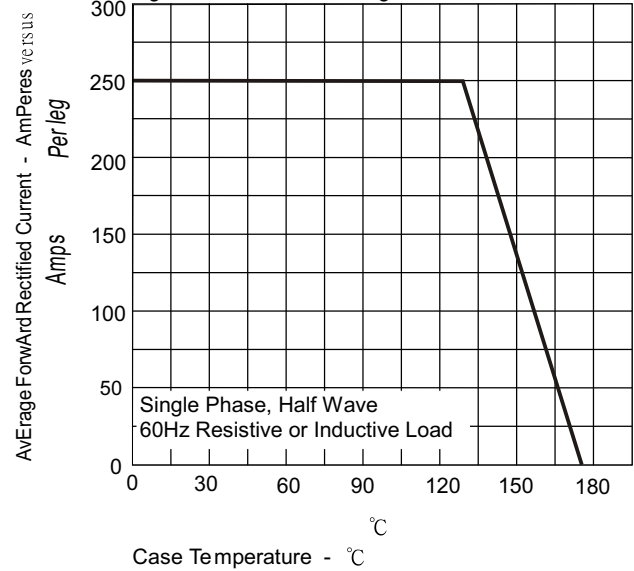


Figure .4- Typical Reverse Characteristics

