

SCHOTTKY DIODES MODULE TYPE 600A

Features

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

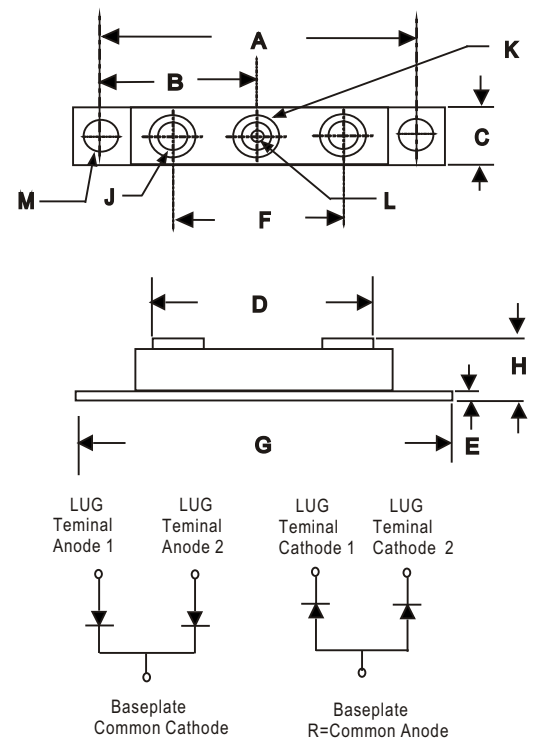
**600Amp Rectifier
20-45 Volts**

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
MBRF60020(R)	20V	14V	20V
MBRF60030(R)	30V	21V	30V
MBRF60035(R)	35V	25V	35V
MBRF60040(R)	40V	28V	40V
MBRF60045(R)	45V	32V	45V



Electrical Characteristics @ 25 °C Unless Otherwise Specified

Average Forward Current (Per pkg)	$I_{F(AV)}$	600A	$T_C = 100^{\circ}\text{C}$
Peak Forward Surge Current (Per leg)	I_{FSM}	4000A	8.3ms, half sine
Maximum Instantaneous Forward Voltage (Per leg) NOTE (1)	V_F	0.65V	$I_{FM} = 300\text{A}; T_J = 25^{\circ}\text{C}$
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage (Per leg) NOTE (1)	I_R	10 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	

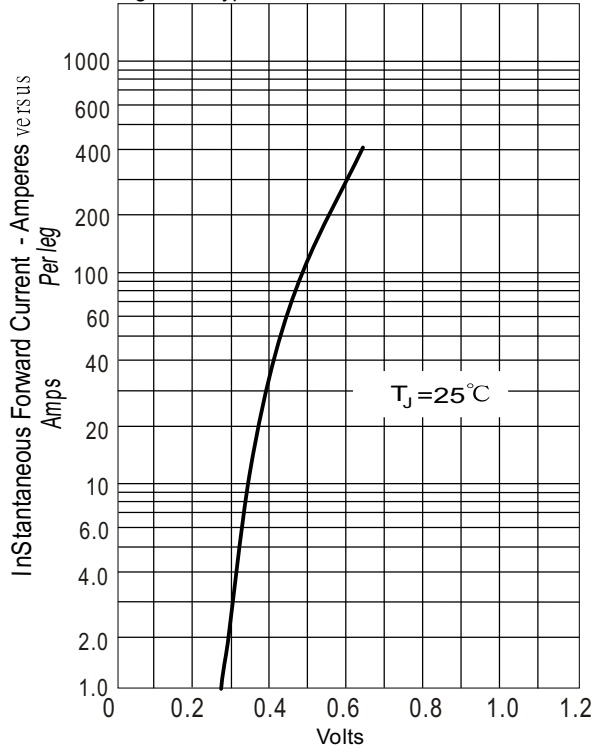
DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	3.150	NOM	80.01	NOM	
B	1.565	1.585	39.75	40.26	
C	.700	.800	17.78	20.32	
E	.119	.132	3.02	3.35	
F	1.375	REF	34.92	REF	
G	3.55	3.65	90.17	92.71	
H	.604	.635	15.35	16.35	
J	1/4	- 20	UNC	FULL	
K	.380	.410	9.65	10.41	Ø
L	.185	.195	4.70	4.95	Ø
M	.275	.295	6.99	7.49	Ø

NOTE :

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

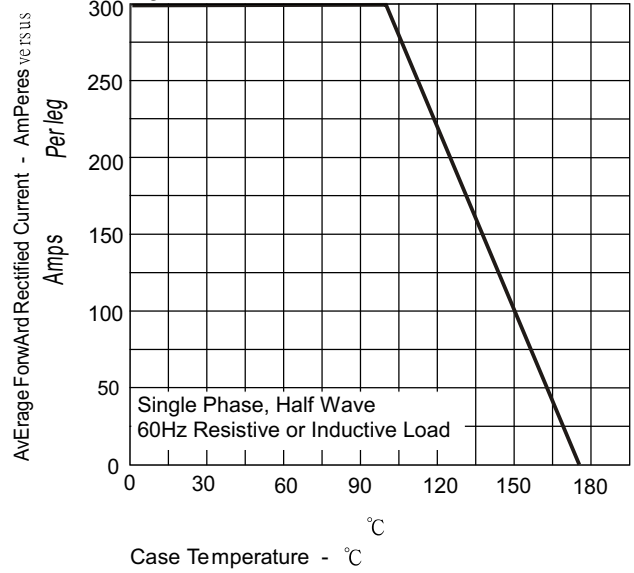
MBRF60020(R) THRU MBRF60045(R)

Figure .1-Typical Forward Characteristics



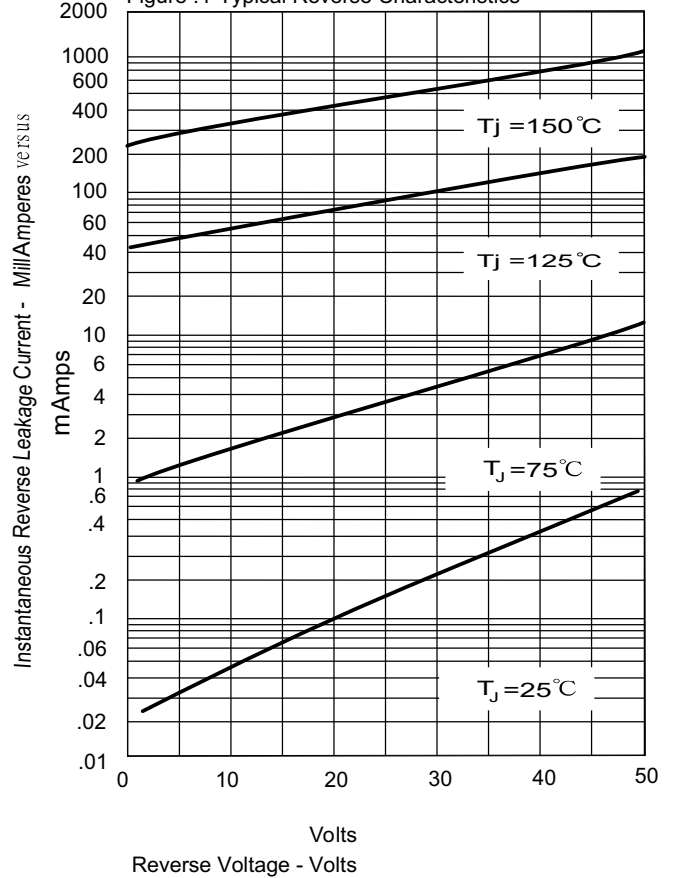
Instantaneous Forward Voltage - Volts

Figure .2-Forward Derating Curve



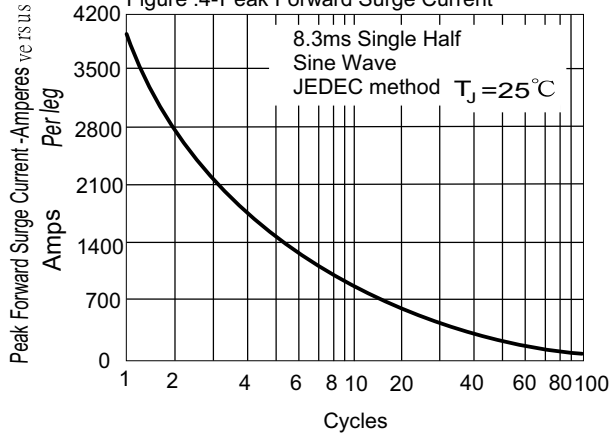
Case Temperature - °C

Figure .4-Typical Reverse Characteristics



Reverse Voltage - Volts

Figure .4-Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles