Transys Electronics LIMITED

MBR12020(R) THRU MBR120100(R)

SCHOTTKY DIODES MODULE TYPE 120A

Features

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

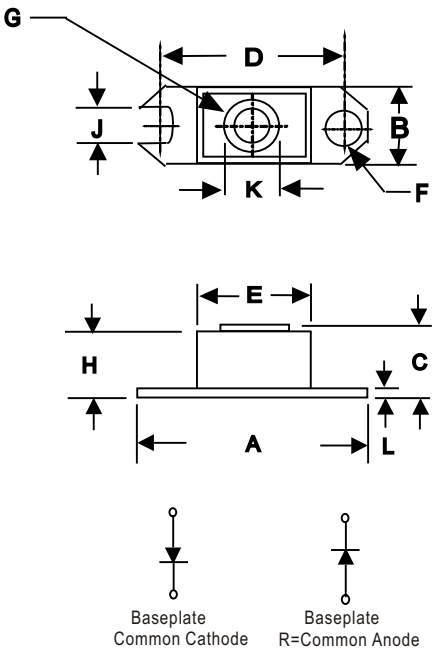
120Amp Rectifier
20-100 Volts

HALF PACKAGE

Maximum Ratings

Operating Temperature: -40 ℃ to +175℃
Storage Temperature: -40 ℃ to +175 ℃

Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR12020(R)	20V	14V	20V
MBR12030(R)	30V	21V	30V
MBR12035(R)	35V	25V	35V
MBR12040(R)	40V	28V	40V
MBR12045(R)	45V	32V	45V
MBR12060(R)	60V	42V	60V
MBR12080(R)	80V	56V	80V
MBR120100(R)	100V	70V	100V



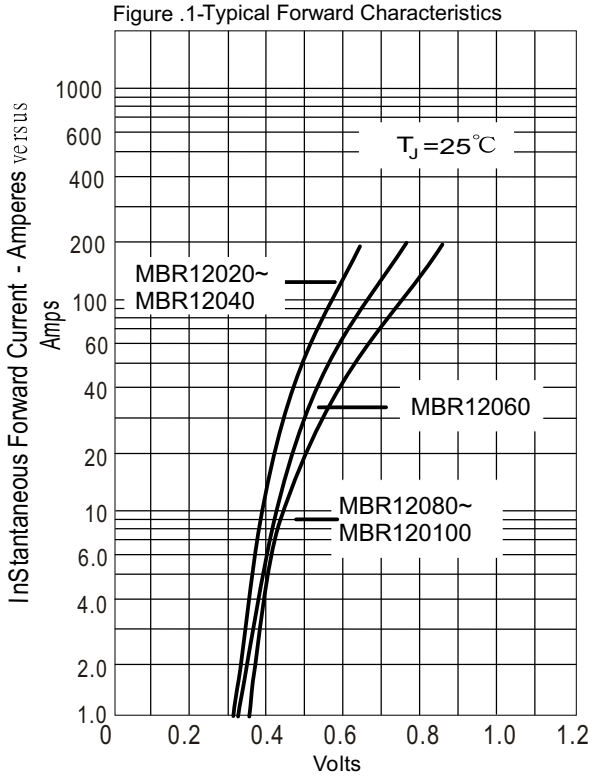
Electrical Characteristics @ 25 ℃ Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	120A	T_C =136 ℃
Peak Forward Surge Current	I_{FSM}	2000A	8.3ms , half sine
Maximum Instantaneous Forward Voltage NOTE (1)	V_F	0.65V 0.75V 0.84V	(MBR12020~MBR12045) (MBR12060) (MBR12080~MBR120100) I_{FM} =120 A; T_j = 25 ℃
Maximum Instantaneous Reverse Current At Rated DC Blocking Voltage NOTE (1)	I_R	4.0 mA 250 mA	T_J = 25 ℃ T_J =125℃
Maximum Thermal Resistance Junction To Case	$R_{\theta jc}$	0.8 ℃/W	

DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	1.515	1.560	38.48	39.62	
B	.725	.775	18.42	19.69	
C	.595	.625	15.11	15.88	
D	.1.182	1.192	30.02	30.28	
E	.745	.755	18.92	19.18	
F	.152	.160	3.86	4.061	Ø
G	1/4	- 20	UNC	- 2B	
H	.540	.580	13.72	14.73	
J	.156	.160	3.96	4.06	
K	.495	.505	12.57	12.83	Ø
L	.120	.130	3.05	3.30	

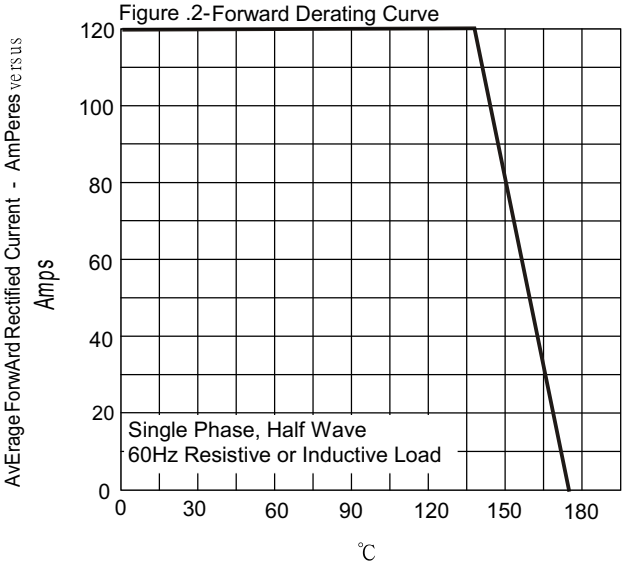
NOTE :
(1) Pulse Test: Pulse Width 300 usec, Duty Cycle < 2%

Figure .1-Typical Forward Characteristics



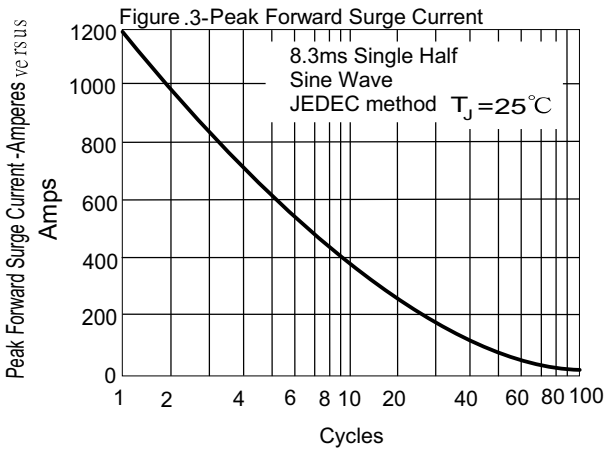
Instantaneous Forward Voltage - Volts

Figure .2-Forward Derating Curve



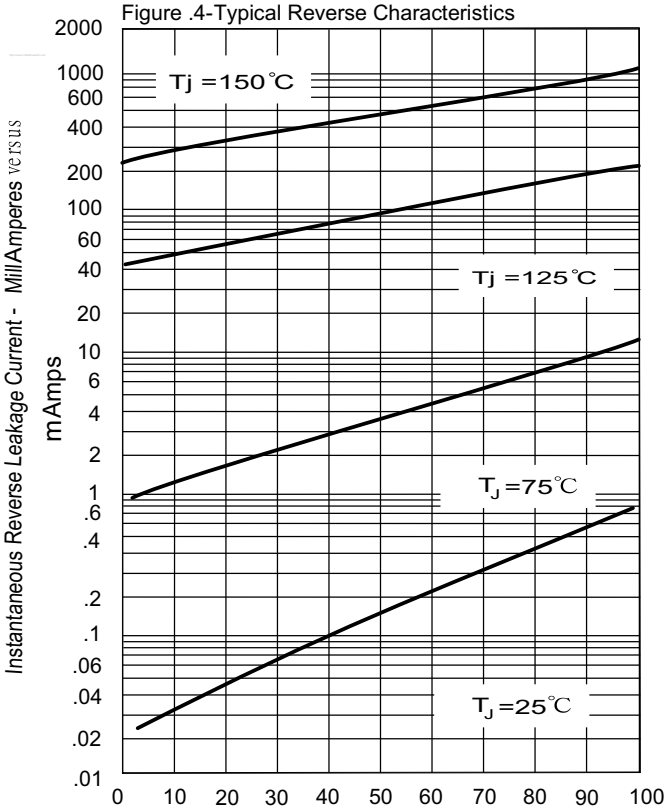
Case Temperature - ℃

Figure .3-Peak Forward Surge Current



Number Of Cycles At 60Hz - Cycles

Figure .4-Typical Reverse Characteristics



Reverse Voltage - Volts