



# MBR1630F THRU MBR16200F

## SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 30 to 200 Volts Forward Current - 16.0 Amperes

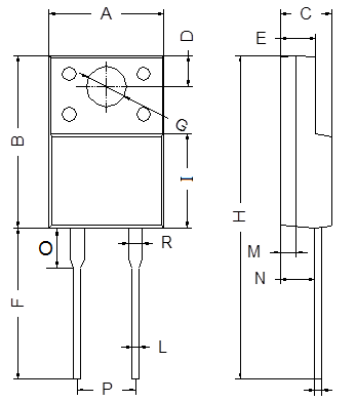
### FEATURES

- High surge capacity
- For use in low voltage ,high frequency
- Inverters,free wheeling,and polarity protection applications.
- Metal silicon junction,majority carrier conduction.
- High current capacity,low forward voltage drop.
- Guard ring die construction for transient protection.

### MECHANICAL DATA

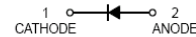
- Case: TO-220F-2L
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

### TO-220F-2L



TO-220F-2L		
Dim	Min	Max
A	9.80	10.30
B	15.20	15.80
C	4.37	4.77
D	2.90	3.30
E	2.50	2.90
F	12.90	13.50
G	3.10	3.30
H	28.40	29.16
I	8.40	9.10
J	0.35	0.58
L	0.68	0.94
M	1.30	1.50
N	2.40	2.60
O	2.60	3.10
P	4.98	5.18
R	1.10	1.32

All Dimensions in mm



### MAXIMUM RATING operating temperature range applies unless otherwise specified

Symbol	Parameter	MBR 1630F	MBR 1635F	MBR 1640F	MBR 1645F	MBR 1650F	MBR 1660F	MBR 1680F	MBR 16100F	MBR 16150F	MBR 16200F	UNIT
$V_{RRM}$	Recurrent Peak Reverse Voltage	30	35	40	45	50	60	80	100	150	200	V
$V_{RMS}$	RMS Reverse Voltage	21	25	28	32	35	42	56	70	105	140	V
$V_{DC}$	DC Blocking Voltage	30	35	40	45	50	60	80	100	150	200	V
$I_{F(AV)}$	Average Forward Total Device Rectified Current @ $T_A=100^{\circ}C$	16										A
$I_R$	Reverse Current $V_R=V_{RRM}, T_A=25^{\circ}C$ $V_R=V_{RRM}, T_A=125^{\circ}C$	0.1					25		50			mA
		15					25		50			
$I_{FSM}$	Forward Surge Current 8.3ms Single Half Sine-wave Superimosed on Rated Load	150										A
$V_F$ (Note1)	Forward $I_F=16A$	0.70			0.80		0.85		0.90		0.95	V
$R_{\theta JC}$	Thermal Resistance(Note1)	1.5										$^{\circ}C/W$
$T_J, T_{STG}$	Operating and Storage Temperature Range	-55 to +150										$^{\circ}C$

Note:1.Thermal resistance from junction to case.



TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified.

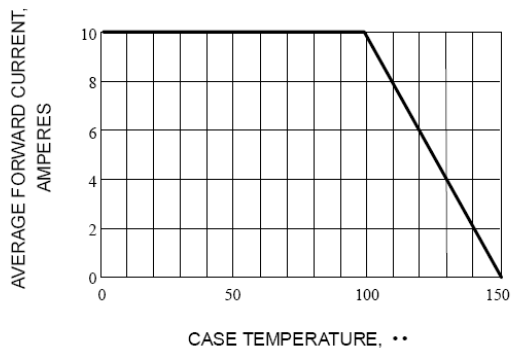


Fig. 1-FORWARD CURRENT DERATING CURVE

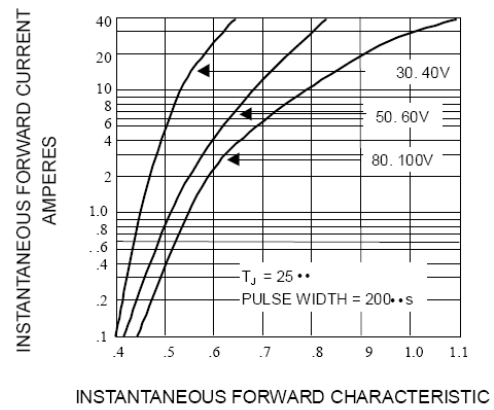


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

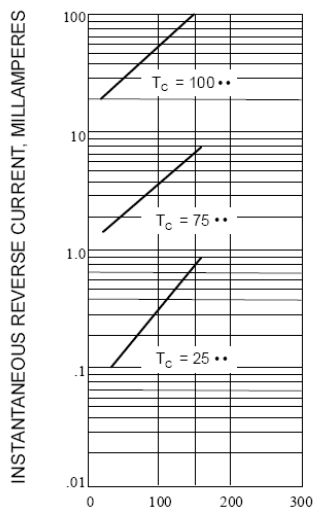


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

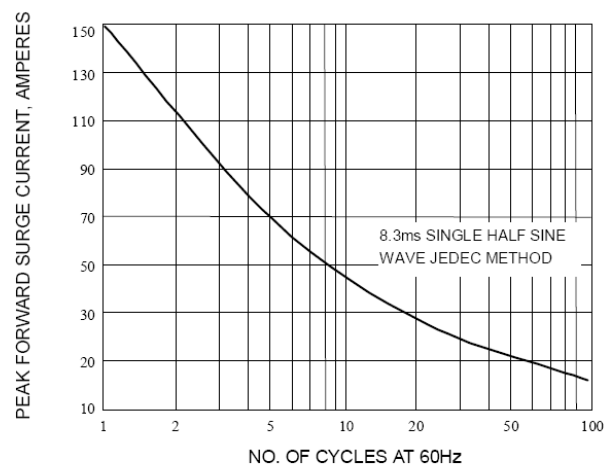


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

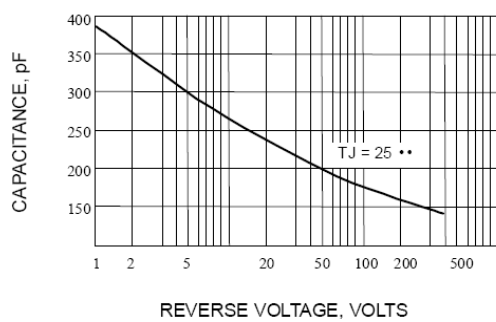


Fig. 5-TYPICAL JUNCTION CAPACITANCE