

VOLTAGE RANGE

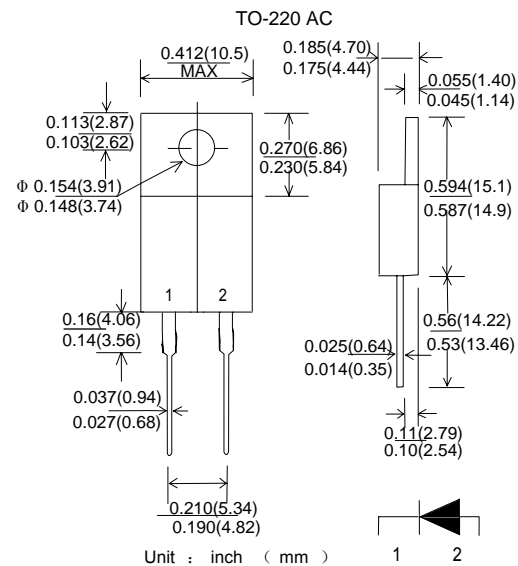
45 Volts

CURRENT

20.0 Ampere

FEATURES

- Guard Ring for over voltage Protection
- High forward surge capability
- High frequency operation
- Component in accordance to RoHS 2002/95/EC
- Case Material: Molded Plastic, UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin Finish annealed over copper Lead frame. Solderable per MIL-STD-202



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MBR2045S	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	30	V
Maximum DC Blocking Voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current (See Fig.1)	$I_{(AV)}$	40.0	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I_{FSM}	250	A
Peak Forward Voltage (Note1) $I_F=20A$ @ $T_J=25^{\circ}C$	V_F	0.55	V
Maximum DC Reverse Current @ $T_J=25^{\circ}C$ at Rated DC Blocking Voltage @ $T_J=125^{\circ}C$	I_R	0.1 20	mA
Typical Thermal Resistance (Note2)	$R_{\theta JC}$	3.5	$^{\circ}C/W$
Operating Temperature Range	T_J	-55 to +125	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}C$

NOTES:1.300us pulse width,2% duty cycle.

2.Thermal resistance junction to case.



MBR2045L

20.0 A Schottky Barrier Rectifier



RATING AND CHARACTERISTIC CURVES

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

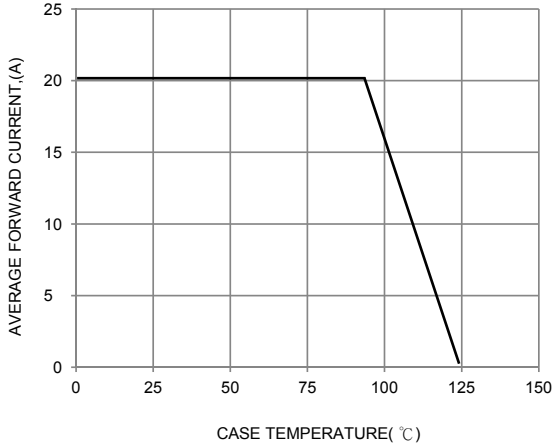


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

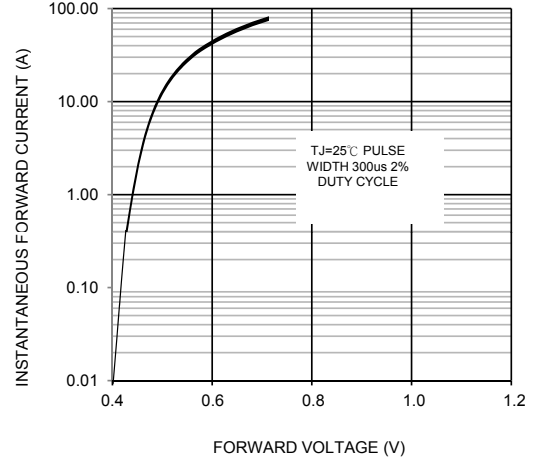


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

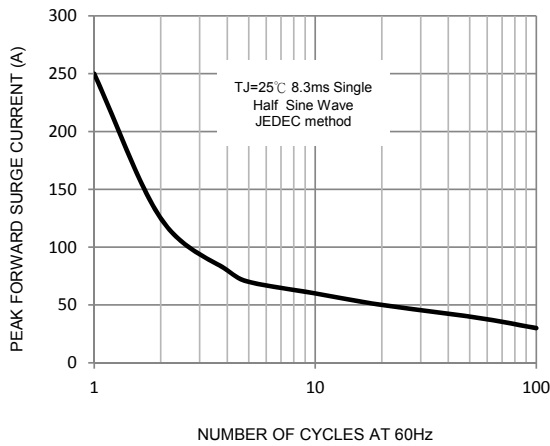


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

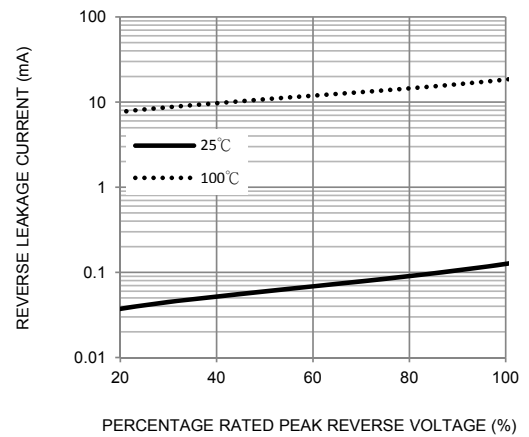
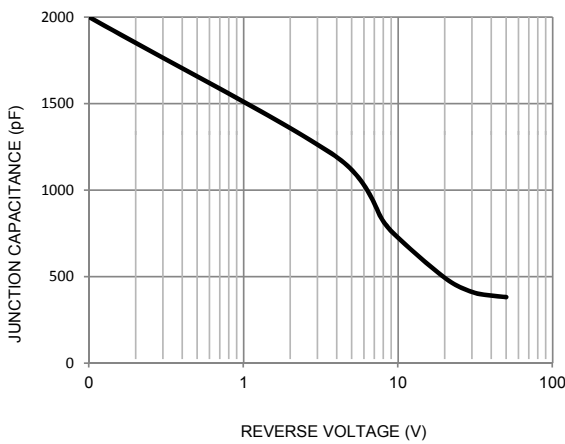


FIG. 5-TYPICAL JUNCTION CAPACITANCE



Package	Packing	Box Size L×W×H(mm)	Quantity(pcs/box)	Carton Size L×W×H(mm)	Quantity(pcs/carton)
TO-220	50pcs/Tube	558×148×38	1000	565×225×175	5000