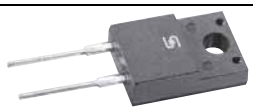
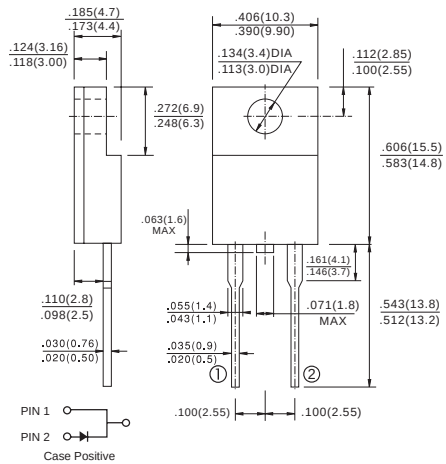
MBRF1635 THRU MBRF16100

Isolation 16.0 AMPS. Schottky Barrier Rectifiers



Voltage Range
35 to 100 Volts
Current
16.0 Amperes

ITO-220AC



Dimensions in inches and (millimeters)

Features

- ✧ Plastic material used carries Underwriters Laboratory Classifications 94V-0
- ✧ Metal silicon junction, majority carrier conduction
- ✧ Low power loss, high efficiency
- ✧ High current capability, low forward voltage drop
- ✧ High surge capability
- ✧ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ✧ Guardring for overvoltage protection
- ✧ High temperature soldering guaranteed: 260°C/10 seconds,0.25"(6.35mm)from case

Mechanical Data

- ✧ Cases: ITO-220AC molded plastic body
- ✧ Terminals: Lead solderable per MIL-STD-750, Method 2026
- ✧ Polarity: As marked
- ✧ Mounting position: Any
- ✧ Mounting torque: 5 in. - lbs. max
- ✧ Weight: 0.08 ounce, 2.24 grams

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	MBRF 1635	MBRF 1645	MBRF 1650	MBRF 1660	MBRF 1690	MBRF 16100	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	35	45	50	60	90	100	V
Maximum RMS Voltage	V_{RMS}	24	31	35	42	63	70	V
Maximum DC Blocking Voltage	V_{DC}	35	45	50	60	90	100	V
Maximum Average Forward Rectified Current at Tc=125°C	$I_{(AV)}$	16						A
Peak Repetitive Forward Current (Rated V_R, Square Wave, 20KHz) at Tc=125°C	I_{FRM}	32.0						A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150				250		A
Peak Repetitive Reverse Surge Current (Note 1)	I_{RRM}	1.0		0.5				A
Maximum Instantaneous Forward Voltage at: (Note 2) I_F=16A, T_C=25°C I_F=16A, T_C=125°C	V_F	0.63 0.57		0.75 0.65		0.85 0.75		V
Maximum Instantaneous Reverse Current @ Tc =25℃ at Rated DC Blocking Voltage (Note 2) @ Tc=125℃	I_R	0.2 40		1.0 50.0		0.2 -		mA mA
Voltage Rate of Change (Rated V_R)	dV/dt	10,000						V/uS
Maximum Typical Thermal Resistance(Note 3)	$R\theta_{JC}$	3.0						℃/W
Typical Junction Capacitance	Cj	560				420		**pF**
Operating Junction Temperature Range	T_J	-65 to +150						℃
Storage Temperature Range	TSTG	-65 to +175						℃

Notes: 1. 2.0us Pulse Width, f=1.0 KHz
2. Pulse Test: 300us Pulse Width, 1% Duty Cycle
3. Mounted on Heatsink Size of 2 in x 3 in x 0.25 in Al-Plate.

RATINGS AND CHARACTERISTIC CURVES (MBRF1635 THRU MBRF16100)

FIG.1- FORWARD CURRENT DERATING CURVE

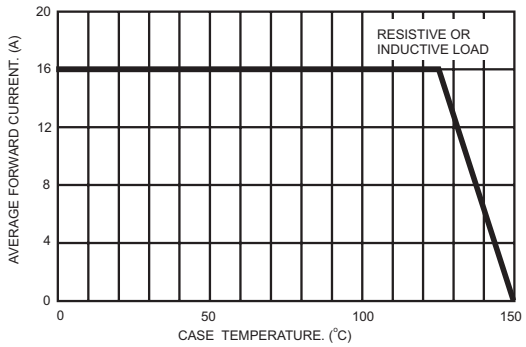


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

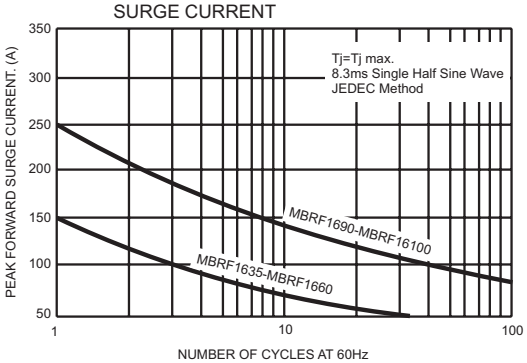


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

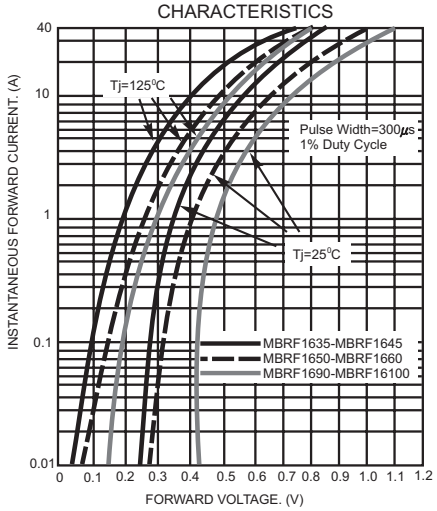


FIG.4- TYPICAL REVERSE CHARACTERISTICS

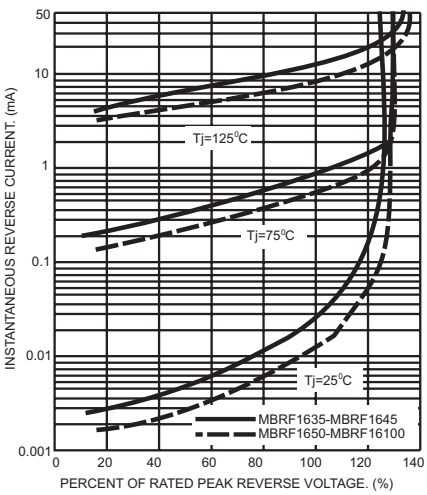


FIG.5- TYPICAL JUNCTION CAPACITANCE

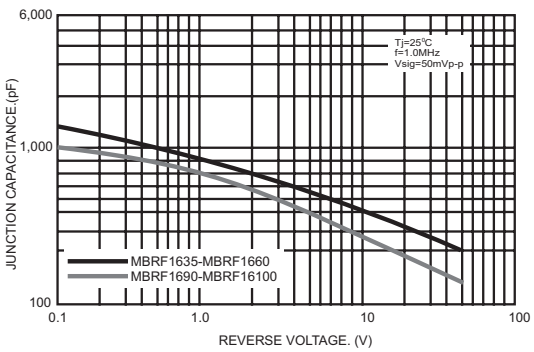


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

