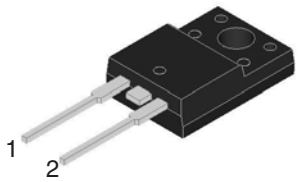
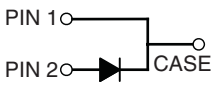
7.5 Amp. Schottky Barrier Rectifier

ITO-220AC





Case Positive

Voltage	Current
45 to 150 V	7.5 A

- Plastic material used carries Underwriters Laboratory Classifications 94V-0
- Metal silicon rectifier, 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, 6.35mm from case

Mechanical Data

- Cases: JEDEC ITO-220AC molded plastic body
- Terminals: Pure tim plated, lead free, solderable per MIL-STD-750, Method 2026
- Polarity: As marked
- Mounting position: Any
- Mounting torque: 5 in. - lbs. max
- Weight: 2.24 grams

Absolute Maximum Ratings, according to IEC publication No. 134

		MBRF 745	MBRF 760	MBRF 7100	MBRF 7150
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	45	60	100	150
V_{RMS}	Maximum RMS Voltage (V)	31	42	70	105
V_{DC}	Maximum DC Blocking Voltage (V)	45	60	100	150
$I_{F\ (AV)}$	Maximum Average Forward Rectified Current See Fig.	7.5 A			
I_{FSM}	Peak Forward Surge Current, 8.3 ms Single Half sine-wave Superimposed on Rated Load (JEDEC Method)	150 A			
I_{RRM}	Peak Repetitive Reverse Surge Current (Note 1)	1.0 A	0.5 A		
T_j	Operating Junction Temperature Range	– 65 to + 150 °C			
T_{stg}	Storage Temperature Range	– 65 to + 175 °C			

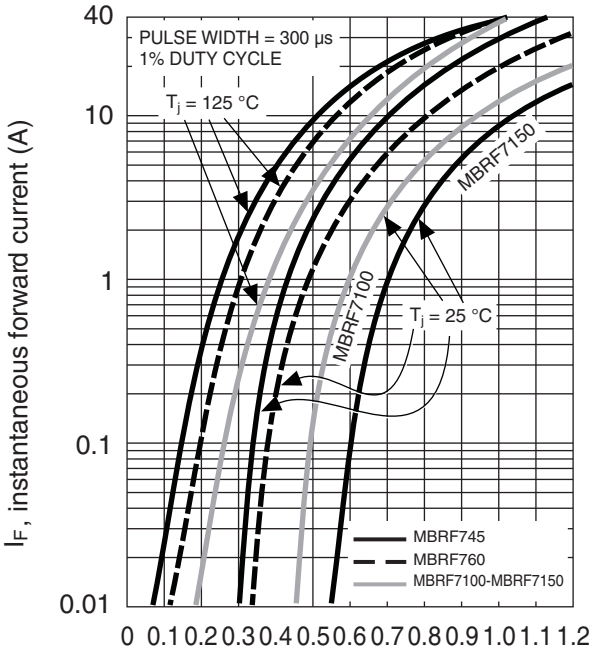
Electrical Characteristics

		MBRF 745	MBRF 760	MBRF 7100	MBRF 7150
V_F	Maximum Instantaneous Forward Voltage at (Note 2) I_F = 7.5 A, Tc = 25 °C	-	0.75 V	0.92 V	1.02 V
	I_F = 7.5 A, Tc = 125 °C	0.57 V	0.65 V	0.82 V	0.92 V
	I_F = 15 A, Tc = 25 °C	0.84 V	-	-	-
	I_F = 15 A, Tc = 125 °C	0.72 V	-	-	-
I_R	Max. Instantaneous Reverse Current @ T_C=25°C	0.1 mA	0.1 mA	0.1 mA	
	at Rated DC Blocking Voltage (Note 1) @ T_C=125°C	15 mA	10 mA	5.0 mA	
R_{thj-c}	Maximum Thermal Resistance (Note 3)	7.0 °C/W			

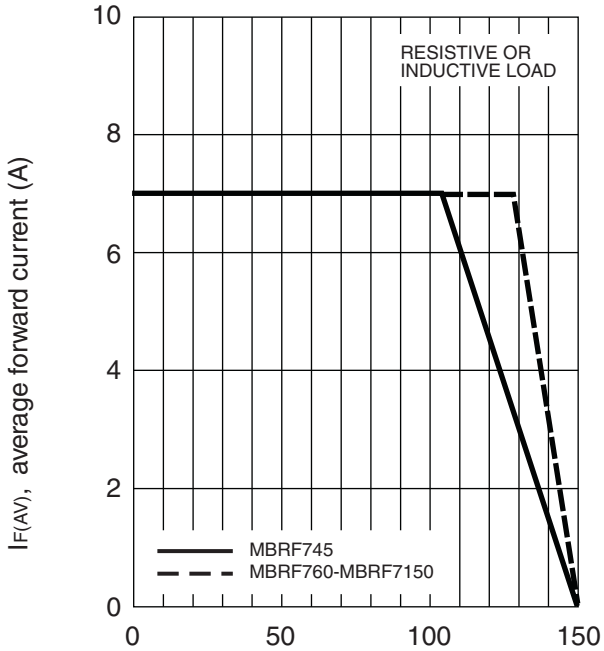
Notes: 1. 2.0µs Pulse Width, f=1.0 KHz
2. Pulse Test: 300µs Pulse Width, 1% Duty Cycle
3. Mounted on Heatsink Size of 50.4 mm x 76.2 mm x 6.35 mm Al-Plate.

Rating And Characteristic Curves

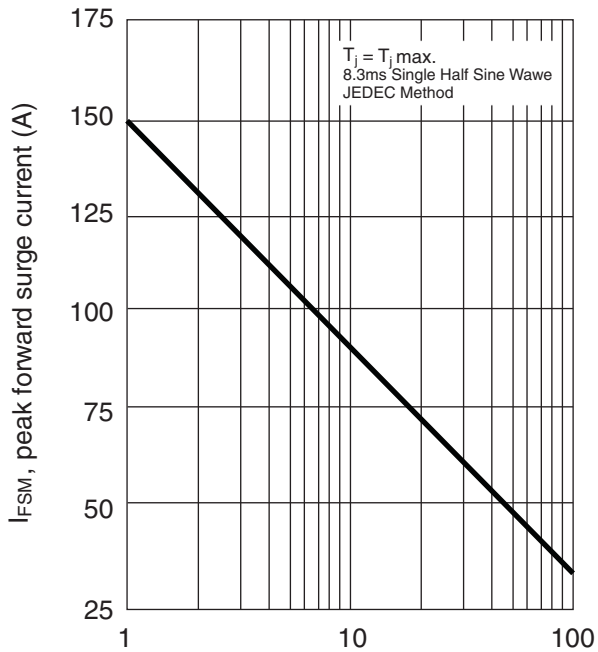
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



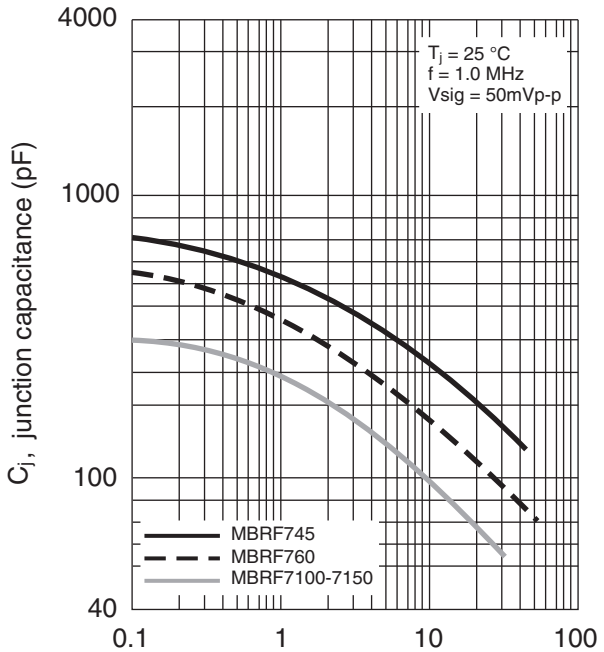
FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

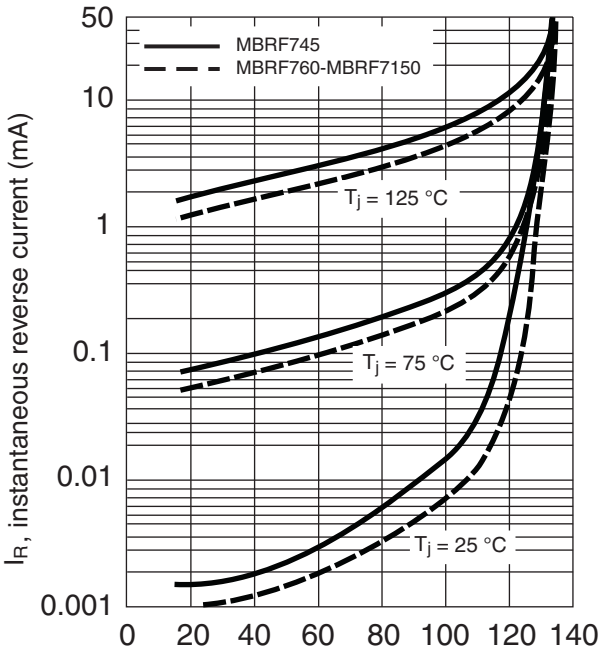


TYPICAL JUNCTION CAPACITANCE

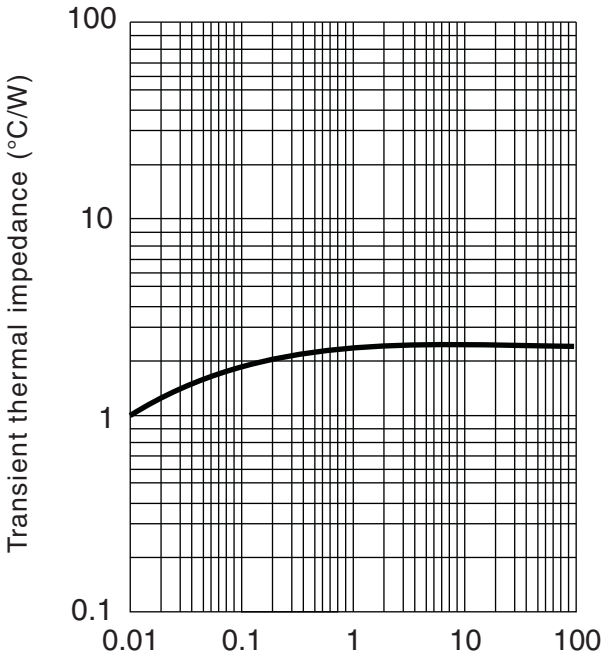


Rating And Characteristic Curves

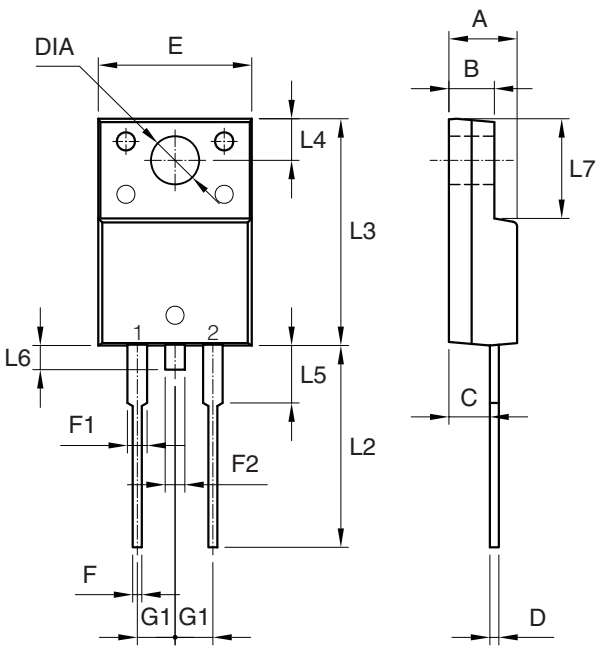
TYPICAL REVERSE CHARACTERISTIC



TYPICAL TRANSIENT THERMAL CHARACTERISTICS



PACKAGE MECHANICAL DATA ITO-220AC



REF.	DIMENSIONS		
	Milimeters		
	Min.	Nominal	Max.
A	4.40	-	4.70
B	3.00	-	3.16
C	2.50	-	2.80
D	0.50	-	0.76
E	9.90	-	10.30
F	0.50	-	0.90
F1	1.10	-	1.40
F2	-	-	1.80
G1	2.40	2.55	2.70
L2	13.20	-	13.80
L3	14.80	-	15.50
L4	2.55	-	2.85
L5	3.70	-	4.10
L6	-	-	1.60
L7	6.30	-	6.90
DIA	3.00	-	3.40