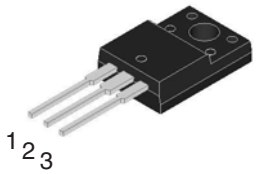
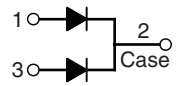
Isolated 15.0 Amp. Schottky Barrier Rectifier

ITO-220AB





Common Cathode
Suffix "C"

Voltage	Current
45 to 150 V	15.0 A

- 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 transient protection
- High temperature soldering guaranteed: 260 °C/10 seconds, 6.35mm from case.

MECHANICAL DATA

- Cases: ITO-220AB molded plastic body
- Terminals: Pure tin 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 1545CT	MBRF 1560CT	MBRF 15100CT	MBRF 15150CT
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 at T_C=105°C	15 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			

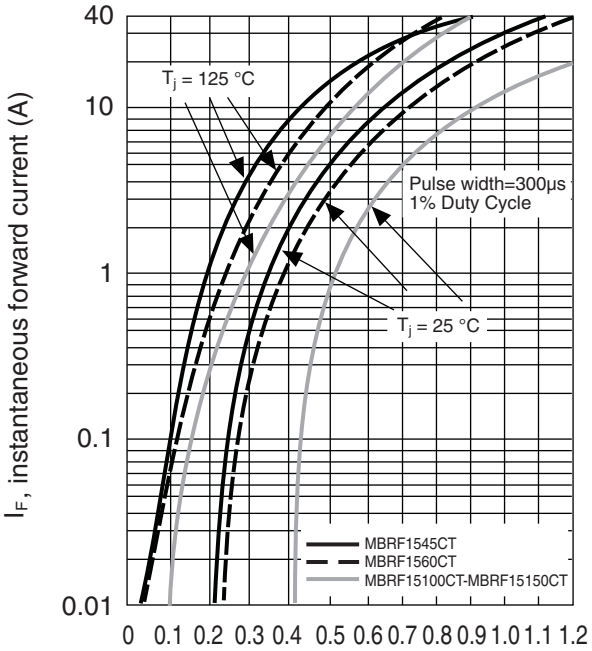
Electrical Characteristics

		MBRF 1545CT	MBRF 1560CT	MBRF 15100CT	MBRF 15150CT
V_F	Maximum Instantaneous Forward Voltage at (Note 2) I_F = 7.5 A, Tc = 25 °C I_F = 7.5 A, Tc = 125 °C I_F = 15 A, Tc = 25 °C I_F = 15 A, Tc = 125 °C	 - 0.57 V 0.84 V 0.72 V	 0.75 V 0.65 V - -	 0.92 V 0.82 V - -	 0.95 V 0.92 V - -
I_R	Max. Instantaneous Reverse Current @ T_C=25°C at Rated DC Blocking Voltage (Note 2) @ T_C=125°C	0.5 mA 10 mA	0.3 mA 7.5 mA	0.1 mA 5.0 mA	
$R_{thj\text{-}C}$	Maximum Thermal Resistance Per Leg (Note 3)	3.5 °C/W			

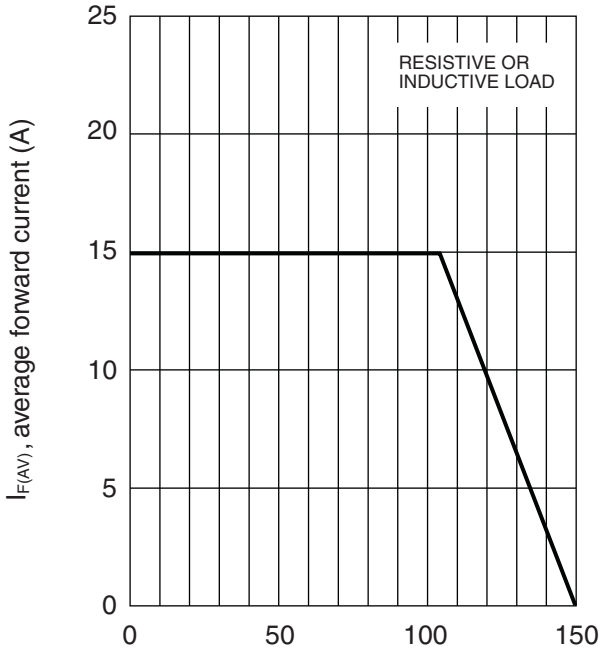
Notes: 1. 2.0µs Pulse Width, f=1.0 KHz
2. Pulse Test: 300µs Pulse Width, 1% Duty Cycle
3. Thermal Resistance from junction to Case Per Leg with Heatsink Size of 50.8 mm x 76.2 mm x 6.35 mm Al-Plate.

Rating And Characteristic Curves

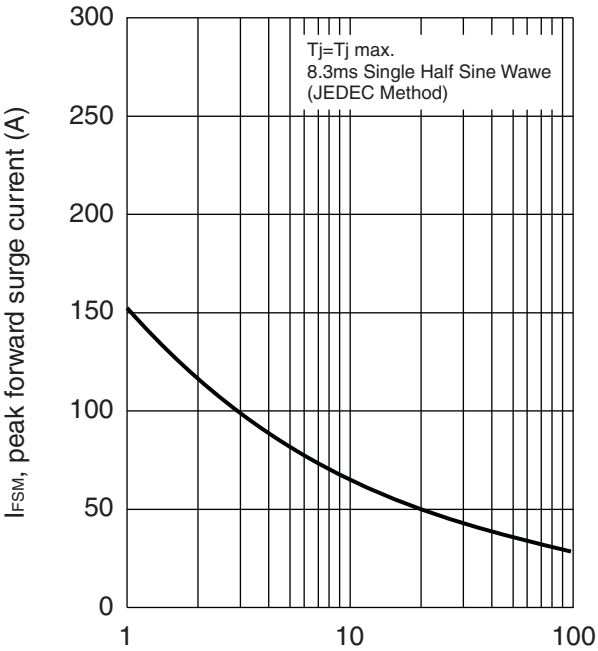
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG



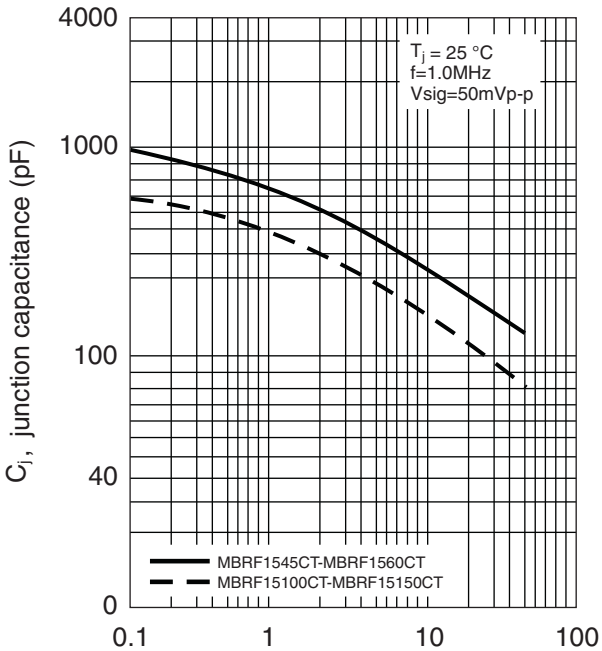
FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

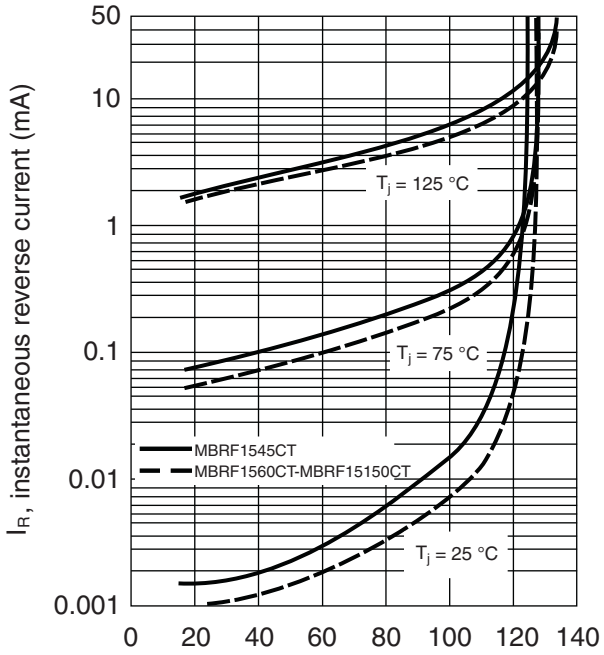


TYPICAL JUNCTION CAPACITANCE PER LEG

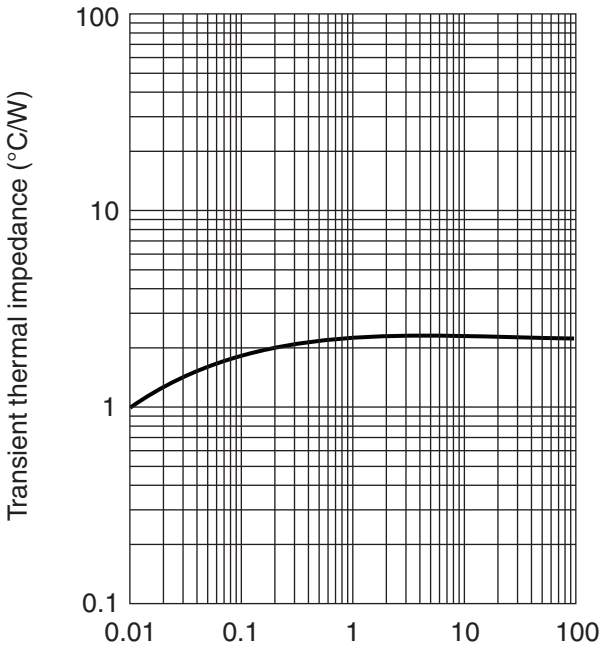


Rating And Characteristic Curves

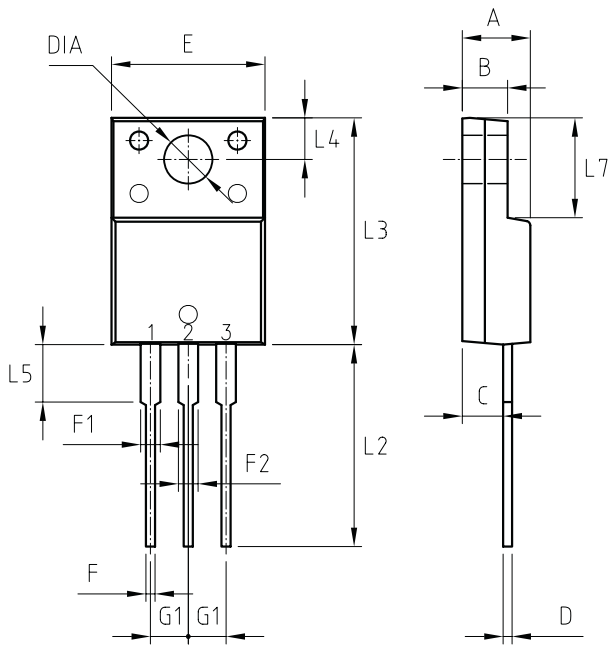
TYPICAL REVERSE CHARACTERISTICS PER LEG



TYPICAL TRANSIENT THERMAL CHARACTERISTICS PER LEG



PACKAGE MECHANICAL DATA ITO-220AB



REF.	DIMENSIONS Milimeters		
	Min.	Nominal	Max.
A	4.4	-	4.7
B	3.0	-	3.16
C	2.5	-	2.8
D	0.5	-	0.76
E	9.9	-	10.3
F	0.5	-	0.9
F1	1.1	-	1.4
F2	-	-	1.8
G1	2.4	2.55	2.7
L2	13.2	-	13.8
L3	14.8	-	15.5
L4	2.55	-	2.85
L5	3.7	-	4.1
L7	6.3	-	6.9
DIA	3.0	-	3.4