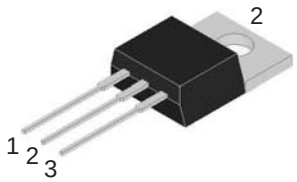
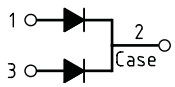
16.0 Amp. Schottky Barrier Rectifier

TO-220AB





Common Cathode
Suffix "C"

Voltage	Current
20 to 150 V	16.0 A

- Low power loss, high efficiency.
- High current capability, Low VF.
- High reliability
- High surge current capability.
- Epitaxial construction.
- Guard-ring for transient protection.
- For use in low voltage, high frequency inventor, free wheeling, and polarity protection application

Mechanical Data

- Cases: TO-220AB molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208 guarenteed
- Polarity: As marked
- High temperature soldering guaranteed: 260°C/10 seconds, 6.35mm from case
- Weight: 2.24 grams

PDF.Support

Absolute Maximum Ratings, according to IEC publication No. 134

		MBR 1620CT	MBR 1640CT	MBR 1660CT	MBR 16100CT	MBR 16150CT
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	20	40	60	100	150
V_{RMS}	Maximum RMS Voltage (V)	14	28	42	70	105
V_{DC}	Maximum DC blocking voltage (V)	20	40	60	100	150
$I_{F\ (AV)}$	Maximum Average Forward Rectified Current See Fig.	16 A				
I_{FSM}	Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	150 A				
C_j	Typical Junction Capacitance at 1MHz and Applied Reverse Voltage of 4.0V D.C.	440 pF		320 pF		
T_j	Operating Junction Temperature Range	– 65 to + 125 °C			– 65 to + 150 °C	
T_{stg}	Storage Temperature Range	– 65 to + 150 °C				

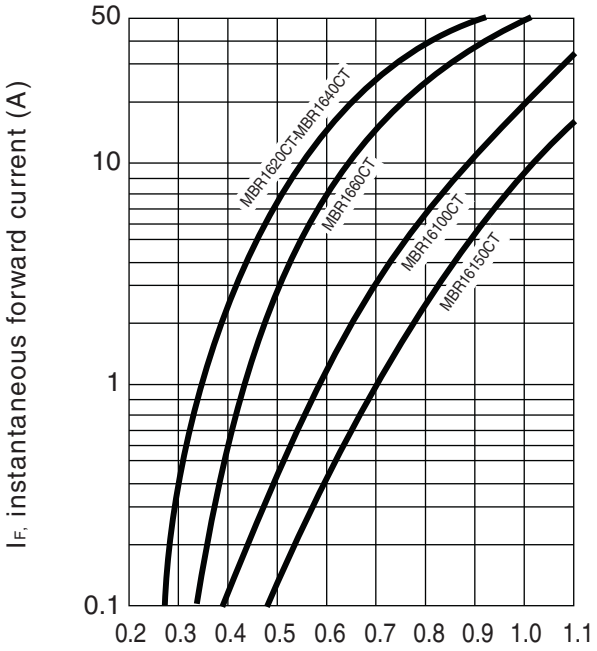
Electrical Characteristics

		MBR 1620CT	MBR 1640CT	MBR 1660CT	MBR 16100CT	MBR 16150CT
V_F	Maximum Instantaneous Forward Voltage @ 8.0 A	0.55 V		0.70 V	0.90 V	1.05 V
I_R	Maximum D.C. Reverse Current @ T_C=25°C	0.5 mA			0.1 mA	
	at Rated DC Blocking Voltage @ T_C=100°C	15 mA		10 mA	5 mA	
$R_{thj\text{-}c}$	Typical Thermal Resistance (Note 1)	2.5 °C/W				

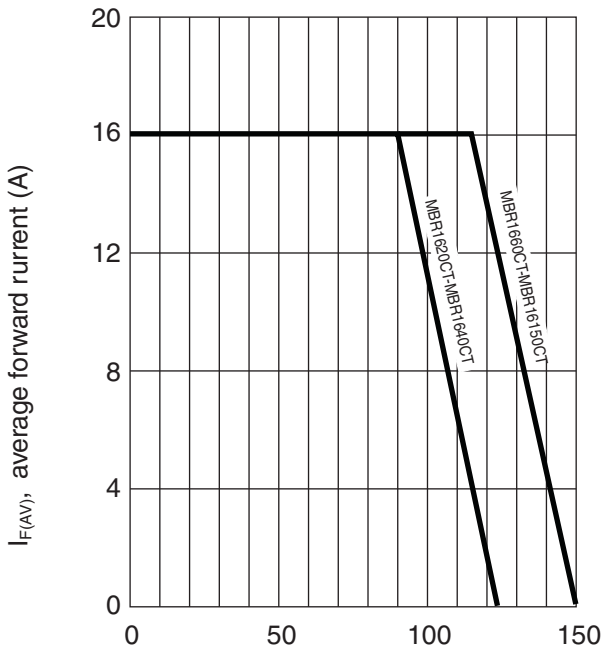
Notes: 1. Mounted on Heatsink Size of 50.4 mm x 76.2 mm x 6.35 mm Al-Plate.

Rating And Characteristic Curves

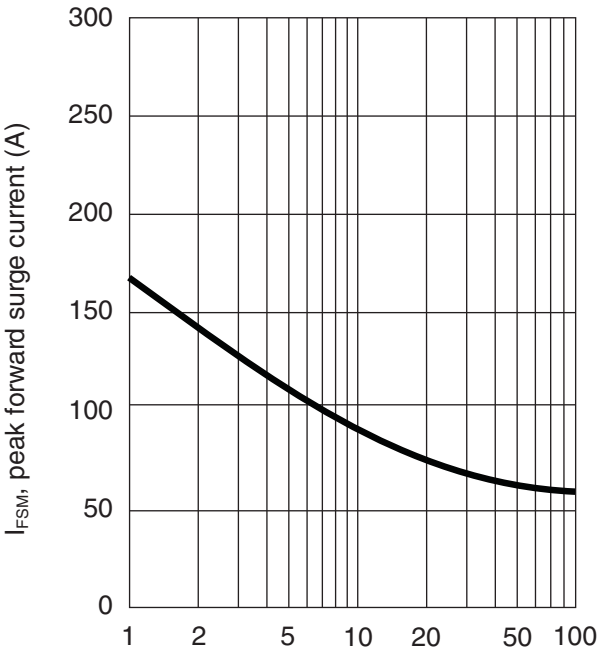
TYPICAL FORWARD CHARACTERISTICS PER LEG



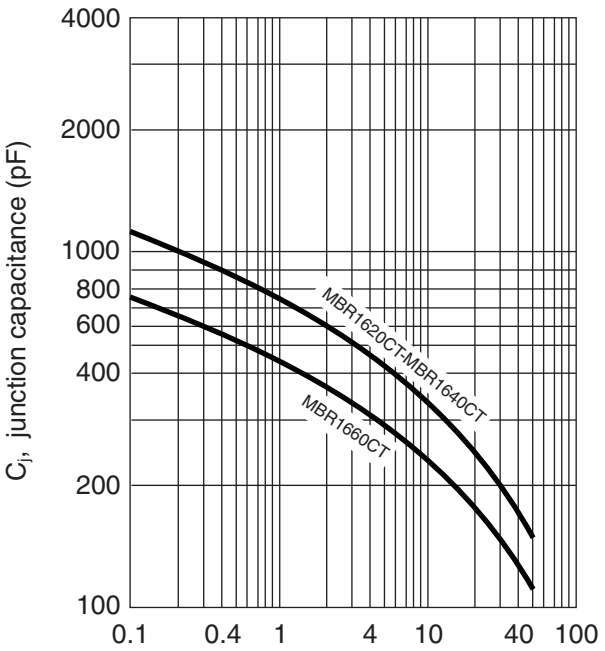
MAXIMUM FORWARD CURRENT DERATING CURVE



MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

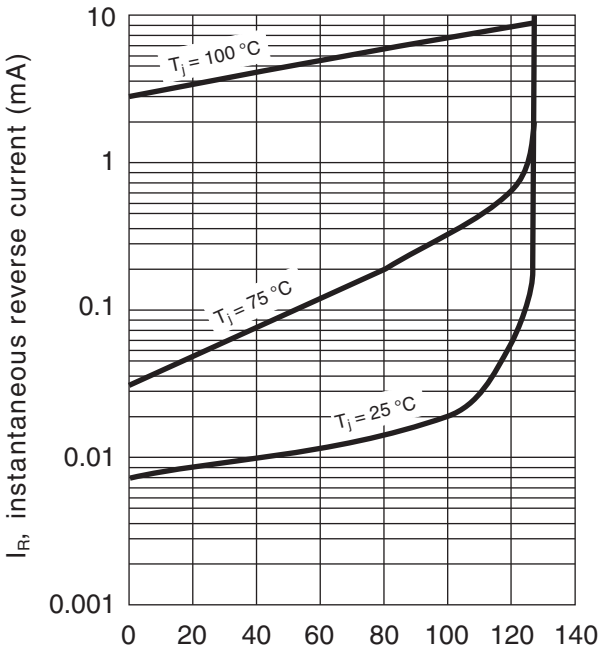


TYPICAL JUNCTION CAPACITANCE PER LEG

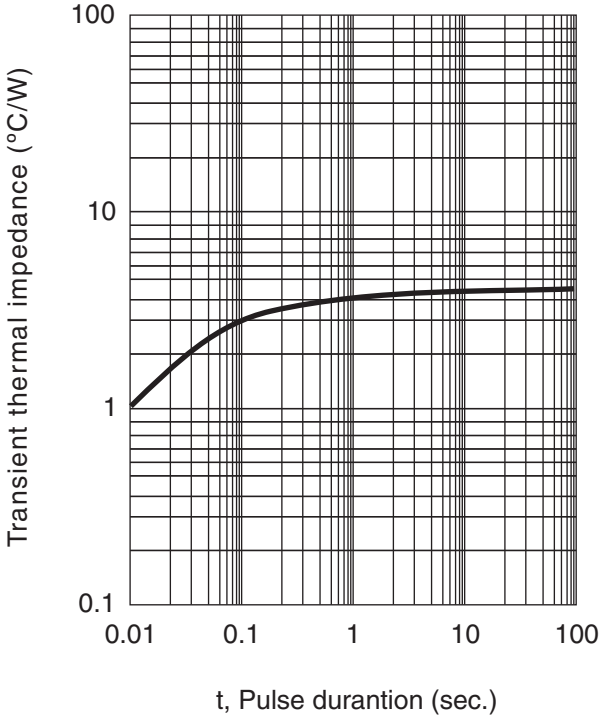


Rating And Characteristic Curves

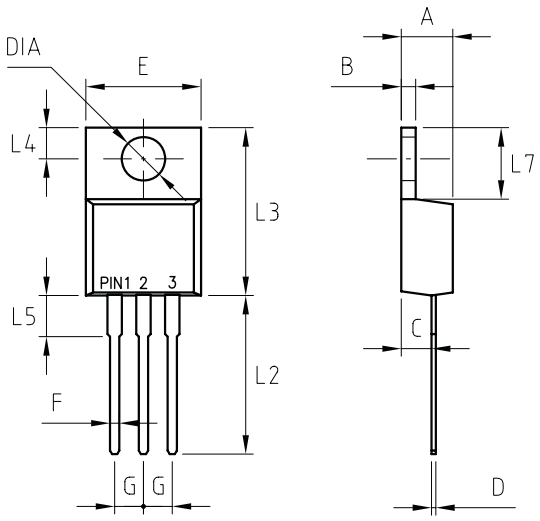
TYPICAL REVERSE CHARACTERISTICS
PER LEG



TYPICAL TRANSIENT THERMAL
CHARACTEREISTICS



PACKAGE MECHANICAL DATA TO-220AB



REF.	DIMENSIONS Milimeters	
	Min.	Max.
A	4.44	4.70
B	1.14	1.40
C	2.54	2.79
D	0.35	0.64
E	--	10.5
F	0.68	0.94
G	2.41	2.67
L2	13.46	14.22
L3	14.90	15.10
L4	2.62	2.87
L5	3.56	4.06
L7	5.84	6.86
DIA	3.91	3.74