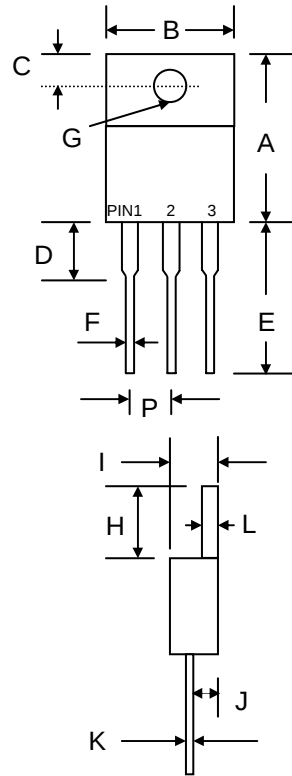


Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- Surge Overload Rating to 1 5 0A Peak
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

- Case: ITO-220AB, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Weight: 2.24 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 11.5 cm·kg (10 in·lbs) Max.
- **Lead Free: For RoHS / Lead Free Version**



ITO-220		
Dim	Min	Max
A	14.60	15.40
B	9.70	10.30
C	2.55	2.85
D	2.70	3.30
E	13.00	13.80
F	0.50	0.75
G	3.00 Ø	3.50 Ø
H	6.30	6.90
I	4.20	4.80
J	2.50	2.90
K	0.50	0.75
L	2.70	3.15
P	2.29	2.79
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Type Number	Symbol	MBR 2035 CT	MBR 2045 CT	MBR 2050 CT	MBR 2060 CT	MBR 20100 CT	MBR 20150 CT	MBR 20200 CT	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	35	45	50	60	100	150	200	V
Maximum RMS Voltage	V _{RMS}	24	31	35	42	63	70	140	V
Maximum DC Blocking Voltage	V _{DC}	35	45	50	60	100	150	200	V
Maximum Average Forward Rectified Current at T _c =135°C	I _(AV)	20							A
Peak Repetitive Forward Current (Rated V _R , Square Wave, 20KHz) at T _c =135°C	I _{FRM}	20							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	150							A
Peak Repetitive Reverse Surge Current (Note 1)	I _{RRM}	1.0	0.5						A
Maximum Instantaneous Forward Voltage at (Note 2) IF=10A, TC=25°C IF=10A, TC=125°C IF=20A, TC=25°C IF=20A, TC=125	V _F	– 0.57 0.84 0.72		0.80 0.70 0.95 0.85		0.85 0.75 0.95 0.85		0.99 0.87 1.23 1.10	V
Maximum Instantaneous Reverse Current @ T _c =25°C at Rated DC Blocking Voltage @ T _c =125°C	I _R	0.1 15		0.1 10		0.1 5.0			mA mA
Voltage Rate of Change, (Rated V _R)	dV/dt	10,000							V/uS
Typical Junction Capacitance	C _j	400		320					pF
Typical Thermal Resistance Per Leg (Note 3)	R _{θJC}	1.0					2.0		°C/W
Operating Junction Temperature Range	T _J	-65 to +150							°C
Storage Temperature Range	T _{STG}	-65 to +175							°C

Notes: 1. 2.0us Pulse Width, f=1.0 KHz
2. Pulse Test: 300us Pulse Width, 1% Duty Cycle
3. Thermal Resistance from Junction to Case Per Leg, with Heatsink Size (4"x6"x0.25") Al-Plate.

FIG.1- FORWARD CURRENT DERATING CURVE

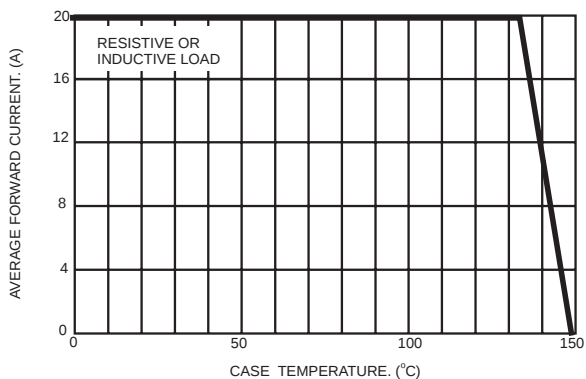


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

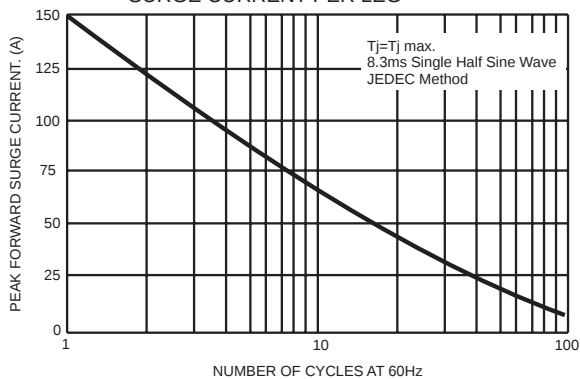


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

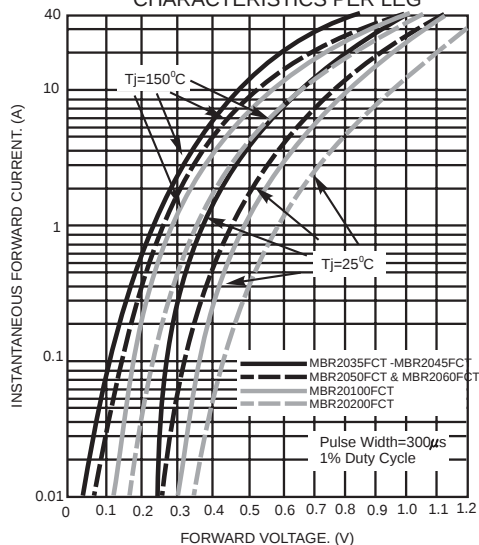


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER LEG

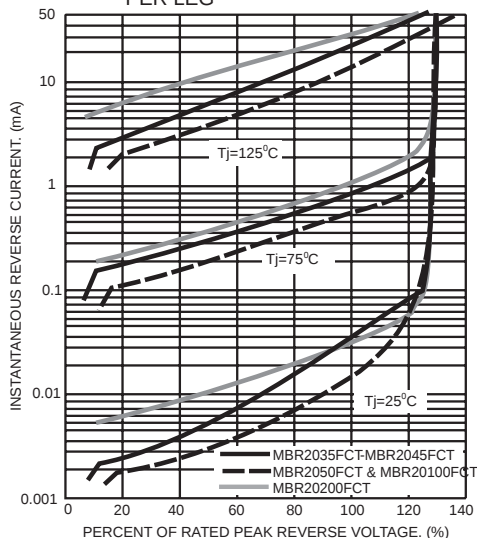


FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

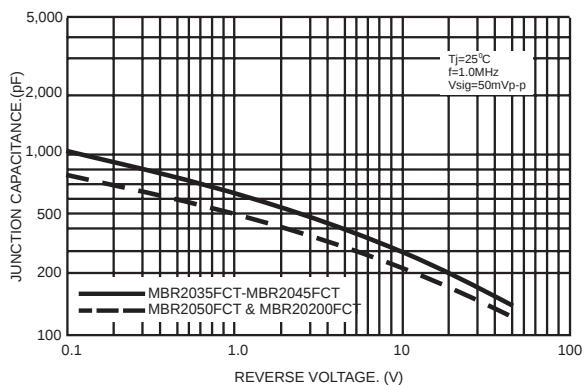


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

