

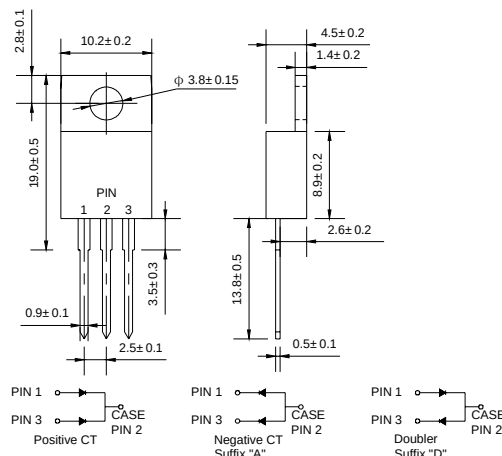


Features

- ◇ High surge capacity.
- ◇ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- ◇ Metal silicon junction, majority carrier conduction.
- ◇ High current capacity, low forward voltage drop.
- ◇ Guard ring for over voltage protection.

Mechanical Data

- ◇ Case: JEDEC TO-220AB, molded plastic body
- ◇ Polarity: As marked
- ◇ Position: Any
- ◇ Weight: 0.071ounce, 2.006 grams



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	Symbol	MBR 2030 CT	MBR 2035 CT	MBR 2040 CT	MBR 2045 CT	MBR 2050 CT	MBR 2060 CT	MBR 2080 CT	MBR 20100 CT	MBR 20150 CT	MBR 20200 CT	UNITS
Maximum recurrent peak reverse voltage	V _{RRM}	30	35	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V _{RMS}	21	25	28	32	35	42	56	70	105	140	V
Maximum DC blocking voltage	V _{DC}	30	35	40	45	50	60	80	100	150	200	V
Maximum average forw ard total device rectified current @T _C = 125°C	I _{F(AV)}	20.0										A
Peak forw ard surge current 8.3ms single half sine-w ave superimposed on rated load	I _{FSM}	150										A
Maximum forward voltage (Note1) (15.0A,T _C =25 °C)	V _F	0.65				0.8		0.85		0.95		V
Maximum reverse current @T _C =25°C at rated DC blocking voltage @T _C =125°C	I _R	0.1 15										m A
Maximum thermal resistance (Note 2)	R _{θJC}	2.0										K/W
Operating junction temperature range	T _J	- 55 ---- + 150										°C
Storage temperature range	T _{STG}	- 55 ---- + 150										°C

NOTE: 1. Pulse test: 300μs pulse width, 1% duty cycle.

2. Thermal resistance from junction to case.

Ratings AND Characteristic Curves

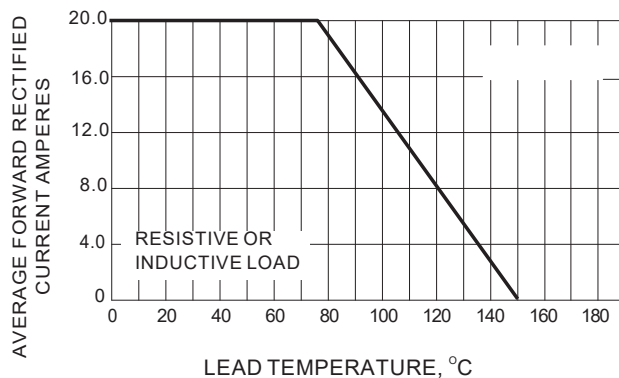


Fig.1- FORWARD CURRENT DERATING CURVE

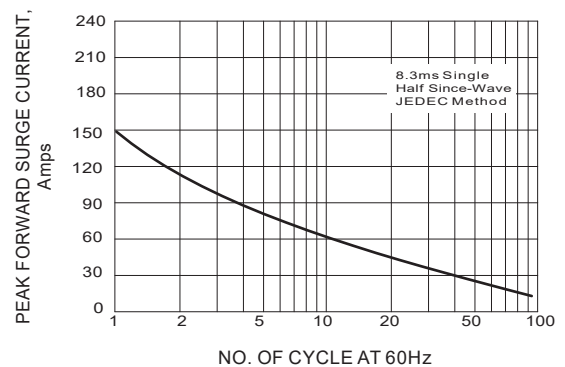


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

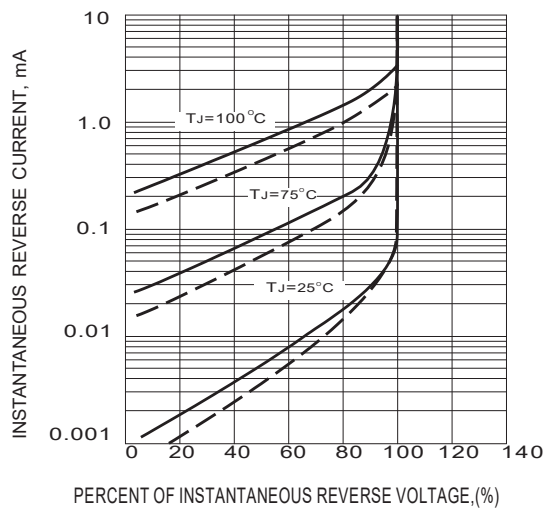


Fig.3- TYPICAL REVERSE CHARACTERISTICS

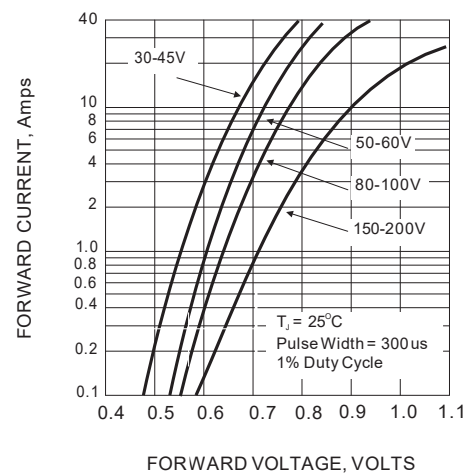


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

Package	Packing	Box Size L×W×H(mm)	Quantity(pcs/box)	Carton Size L×W×H(mm)	Quatity(pcs/carton)
TO-220	50pcs/Tube	560×150×50	1000	570×290×180	5000