

Features:

- Schottky barrier chip
- Guard ring for over voltage protection
- Low power loss, high efficiency
- Low reverse leakage current
- High surge current capability
- Plastic material has UL flammability classification 94V-0

Mechanical Data:

Case	: ITO-220AB Type, molded plastic
Terminals	: Pure tin plated, lead free solderable per MIL-STD-750, method 2026
Polarity	: As marked on the body
Weight	: 1.8 grams (approx.)
Mounting Position	: Any
Reverse Voltage	: 45 Volts
Forward Current	: 30 Amperes

Typical Applications:

For use in low voltage, high frequency inverters mode power supplies, freewheeling diode and polarity protection application.

Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Characteristics	Symbol	Values	Unit
Max. Recurrent Peak Reverse Voltage	V _{RRM}	45	V
Max. RMS Voltage	V _{RMS}	31.5	
Max. DC Blocking Voltage	V _{DC}	45	
Max. Average Forward Rectified Current	I _{F(AV)}	30	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed on Rated Load (JEDEC Method)	I _{FSM}	200	
Max. Forward Voltage at 15A per leg	V _F	0.7	
Max. DC Reverse Current Rated DC Blocking Voltage	I _R	0.1	mA
T_A = 25°C T_A = 125°C		20	
Typical Thermal Resistance, Junction to Case	R _{θJC}	3.5	°C/W
Operating Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

Notes:

1. Mounted on 14mm × 14mm pad areas, 1oz. FR4 P.C.B.
2. Free air, mounted on recommended copper pad area.
3. Pulse test: 300us pulse width, 1% duty cycle.
4. Pulse test: Pulse width ≤ 40ms
5. The typical data above is for reference only

Ratings and Characteristic Curves

Fig 1. Forward Current Derating Curve

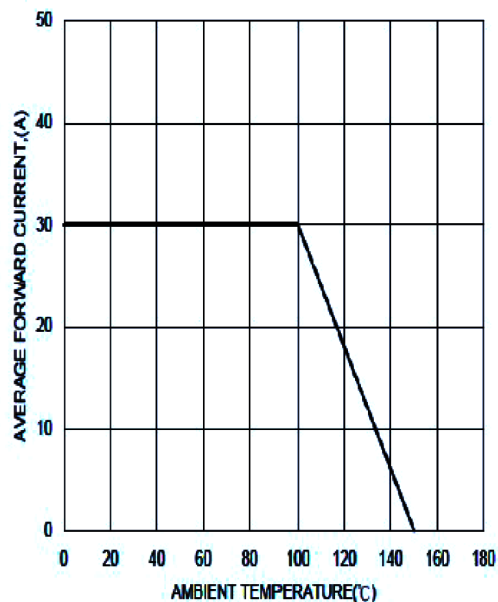


Fig 2. Typical Instantaneous Forward Characteristic

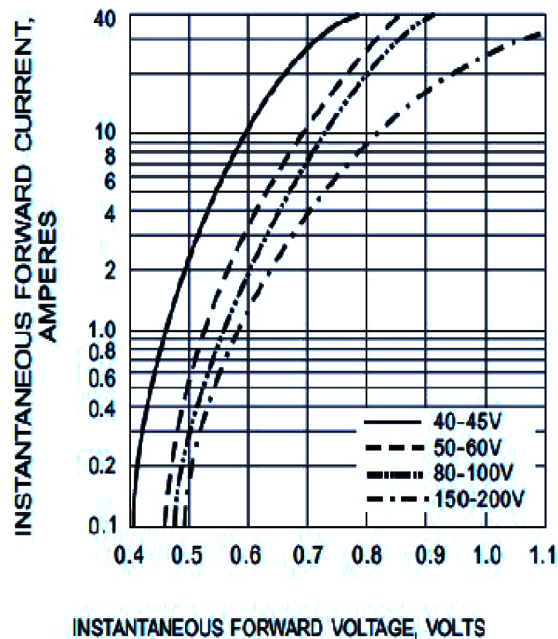


Fig 3. Typical Reverse Characteristics

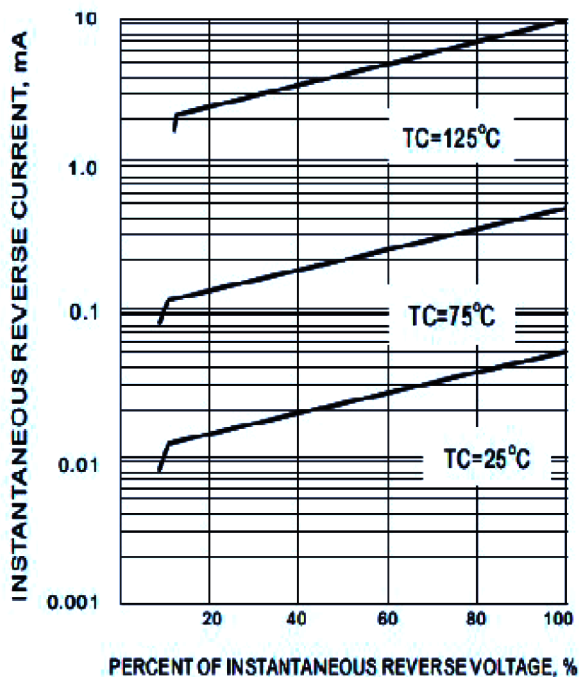
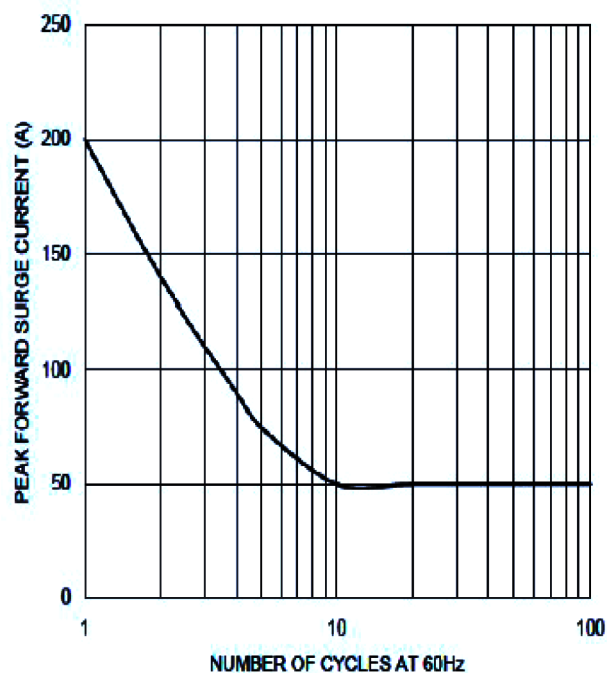
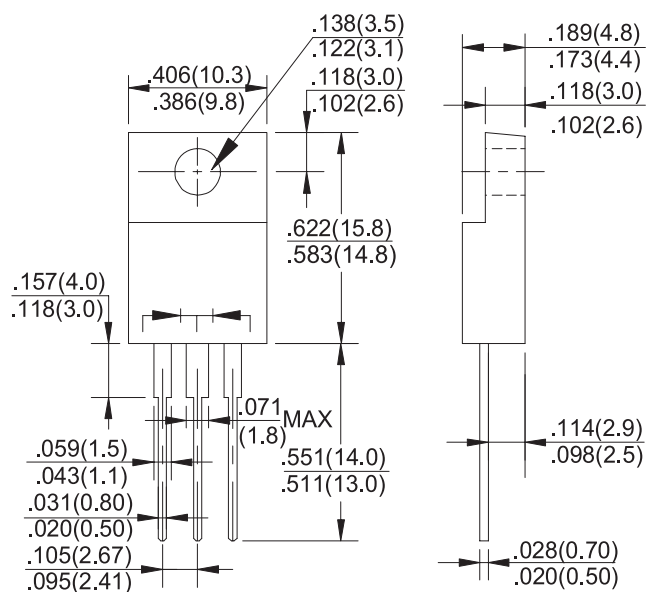


Fig 4. Max. Non-Repetitive Surge Current



Dimensions:

ITO-220AB



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Schottky Barrier Rectifier	MBRF3045CT

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