

SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE - **30 to 45** Volts
FORWARD CURRENT - **20** Amperes

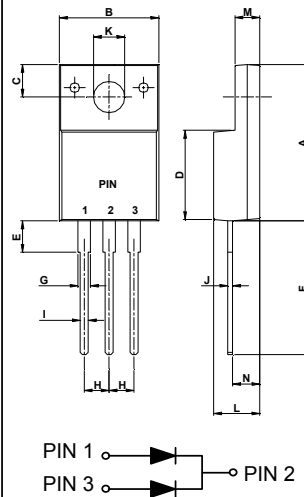
FEATURES

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss, high efficiency
- High current capability, low VF
- High surge capacity
- Plastic package has UL flammability classification 94V-0
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

- Case : ITO-220AB molded plastic
- Polarity : As marked on the body
- Weight : 0.06 ounces, 1.7 grams
- Mounting position : Any
- Max. mounting torque = 0.5 N.m (5.1 Kgf.cm)

ITO-220AB



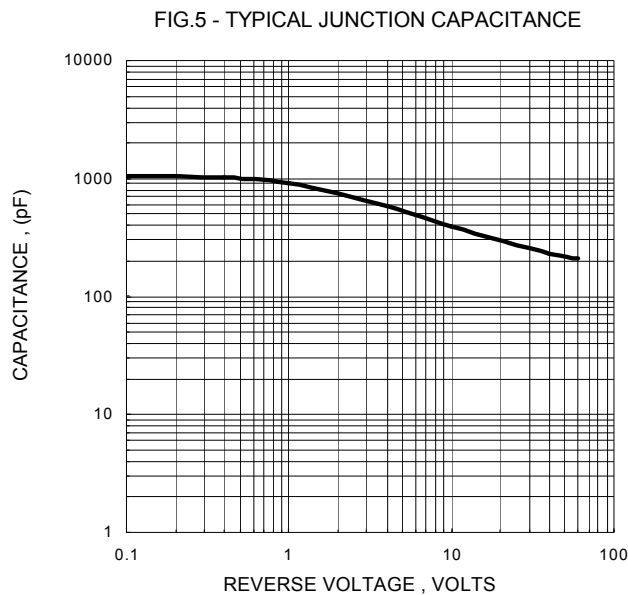
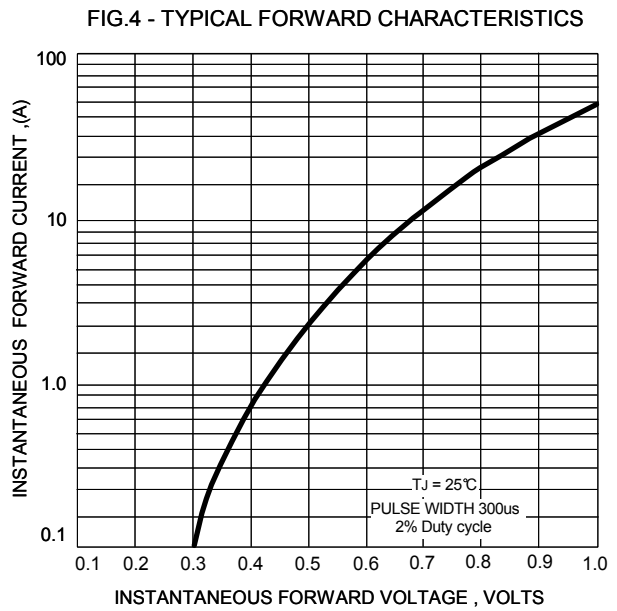
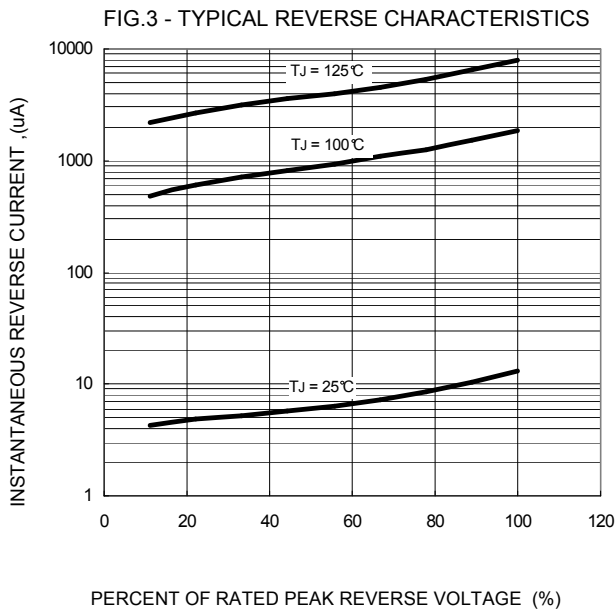
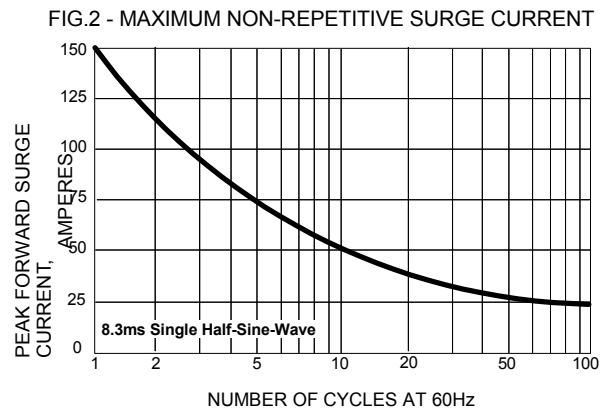
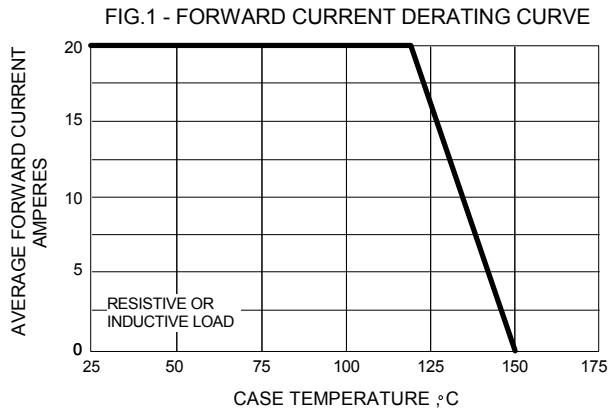
ITO-220AB		
DIM.	MIN.	MAX.
A	15.50	16.50
B	10.0	10.40
C	3.00	3.50
D	9.00	9.30
E	2.90	3.60
F	13.46	14.22
G	1.15	1.70
H	2.40	2.70
I	0.75	1.00
J	0.45	0.70
K	3.00 \varnothing	3.30 \varnothing
L	4.36	4.77
M	2.48	2.80
N	2.50	2.80
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	MBRF2030CT	MBRF2040CT	MBRF2045CT	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	30	40	45	V
Maximum RMS Voltage	V _{RMS}	21	28	31.5	V
Maximum DC Blocking Voltage	V _{DC}	30	40	45	V
Maximum Average Forward Rectified Current (See Fig.1)	T _C = 120°C I _(AV)	20			A
Peak Forward Surge Current 8.3ms single half sine-wave	@T _J = 25°C I _{FSM}	150			A
Voltage Rate of Change (Rated VR)	dv/dt	10000			V/us
Maximum Forward Voltage (Note 1)	I _F = 10A @ T _J = 25°C I _F = 10A @ T _J = 125°C I _F = 20A @ T _J = 25°C I _F = 20A @ T _J = 125°C	V _F	- 0.57 0.84 0.72		V
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T _J = 25°C @T _J = 100°C	I _R	0.02 15		mA
Typical Junction Capacitance per element (Note 2)	C _J	580			pF
Typical Thermal Resistance (Note 3, 4)	R _{θJC}	2.0			°C/W
Operating Temperature Range	T _J	-55 to +150			°C
Storage Temperature Range	T _{STG}	-55 to +175			°C
Dielectric Strength from terminals to case, AC with t=1 minute, RH<30%	V _{dis}	2000			V

- NOTES : 1. 300us Pulse Width, 2% Duty Cycle.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal Resistance Junction to Case.
4. Device mounted on 135 mm x 135 mm x 8 mm Al Plate.



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