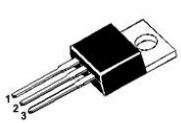
REASUNOS

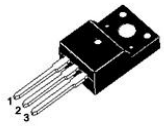
MBR20150CT MBRF20150CT

SCHOTTKY BARRIER RECTIFIER

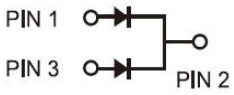
Lead Free Package and Finish



TO-220AB/MBR



ITO-220 /MBRF



FEATURES

- Low forward voltage
- High current capability
- High forward surge capability
- Low power losses，High efficiency
- Guarding for over voltage protection

APPLICATIONS

Low VF Schottky barrier rectifier are designed for high freqency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

Primary Characteristic

I_O	2*10A
V_{RRM}	150V
I_{FSM}	290A
V_F	0.72V
$T_J$max	150℃

MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275℃ maximum,10s per JESD 22-B106

Maximum Ratings (Per Leg) at Ta=25°C unless otherwise specified

Characteristics		Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	150	V
Working Peak Reverse Voltage		V_{RWM}	150	V
Maximum DC Blocking Voltage		V_{DC}	150	V
Maximum Average Forward Rectified Current	Per Leg	I_O	10	A
	Total		20	
Peak Forward Surge Current,8.3 ms Single Half Sine-wave		I_{FSM}	290	A
Operating Temperature Range		T_J	150	°C
Storage Temperature Range		T_{STG}	-40 to +150	°C
Typical Thermal Resistance (Note1) TO-220AB ITO-220		$R_{\theta JC}$	 2 4	°C/W

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics (Per Leg) unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V_F	Typ.	Max.	V
at I_F=3A	TA=25°C		0.73	-	
	TA=125°C		0.60	-	
at I_F=5A	TA=25°C		0.77	-	
	TA=125°C		0.64	-	
at I_F=10A	TA=25°C		0.84	0.90	
	TA=125°C		0.72	-	
Maximum Reverse Current at V_R=150V	TA=25°C	I_R	1	10	μA
	TA=125°C		1	-	mA

Note2:Pulse test: 300 μs pulse width, 1 % duty cycle

RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

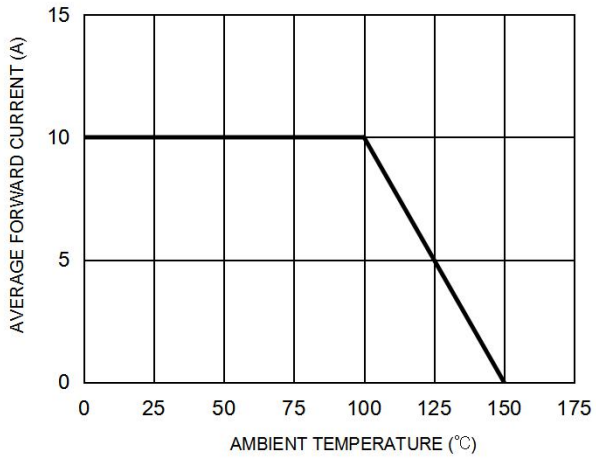


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

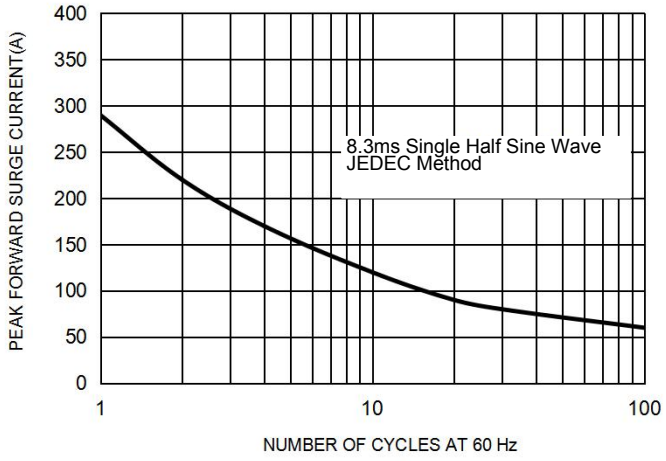


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

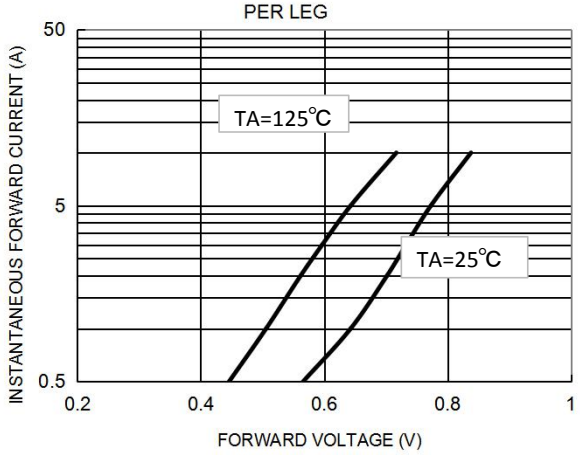
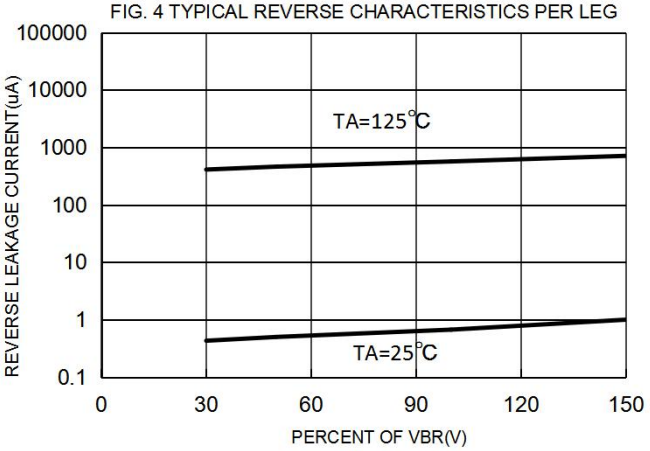
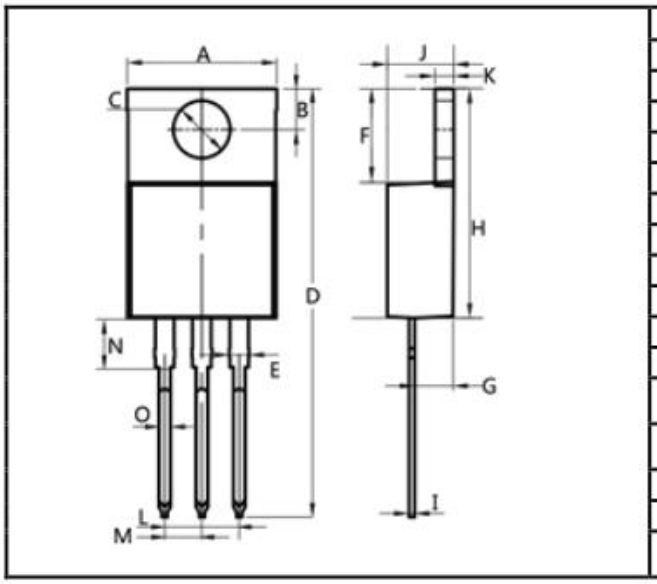


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



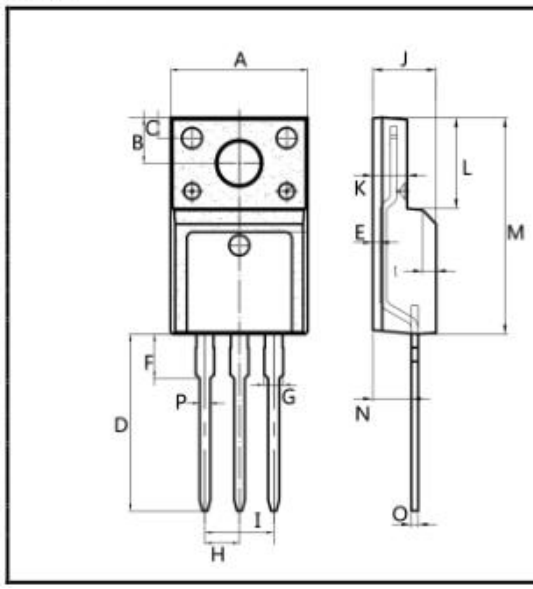
Package Outline Dimensions millimeters

TO-220AB



Dim.	Min.	Max.
A	10.15	10.35
B	2.65	2.95
C	3.70	3.90
D	28.5	29.5
E	1.30	1.45
F	6.35	6.55
G	2.9	3.3
H	15.0	16.0
I	0.38	0.42
J	4.45	4.55
K	1.25	1.35
L	Typ 5.08	
M	Typ 2.54	
N	3.1	3.3
O	0.76	0.84
All Dimensions in millimeter		

ITO-220



Dim.	Min.	Max.
A	9.95	10.25
B	2.95	3.25
C	1.25	1.45
D	12.95	13.25
E	0.50	0.65
F	3.1	3.3
G	1.30	1.45
H	Typ 2.54	
I	Typ 5.08	
J	4.60	4.75
K	2.50	2. 65
L	6.35	6.55
M	15.4	16.0
N	2.75	3.05
O	0.48	0.52
P	0.76	0.84
All Dimensions in millimeter		

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