

Technical Data Data Sheet N1108, Rev. A **Green Products**

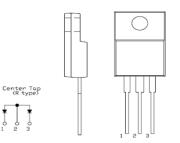
MBRF20150CTR SCHOTTKY RECTIFIER

Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

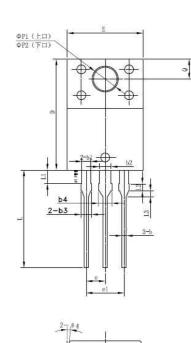
Features:

- 150 °C TJ operation
- Center tap configuration
- Low forward voltage drop
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

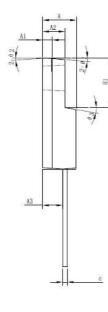


OUTLINE DRAWING

Mechanical Dimensions: In mm



n m



SYMBOL	MIN.	TYP.	MAX.	
Α	4.30	4.50	4.70	
A1	1.10	1.30	1.50	
A2	2.80	3.00	3.20	
A3 b b1	2.50	2.70	3.20 2.90	
b	0.50	0.60	0.75	
b1	1.10	1.20	1.35	
b2	1.50	1.60	1.75	
b3	1.20	1.30	1.45	
b4	1.60	1.70	1.85	
С	0.55	0.60	0.75	
c D E	14.80	15.00	15.20	
E	9.96	10.16	10.36	
е		2.55		
e1		5.10		
H1 L	6.50	6.70	6.90	
L	12.70	13.20	13.70	
L1 L2 L3	1.60	1.80	2.00 1.20	
L2	0.80	1.00	1.20	
L3	0.60	0.80	1.00	
ΦΡ1(上口)	3.30	3.50	3.70	
ΦΡ2 (下口)	2.99	3.19	3.39	
Q	2.50	2.70	2.90	
Θ1		5°		
01 02		5° 4° 10°		
Θ3		10°		
Θ4		5°		
Θ5		5°		

ITO-220AB(HD)

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Where XXXXX is YYWWL

= Device Type

= Package type

= Configuration

= SSG

= Year

= Week = Lot Number

= Forward Current (20A) = Reverse Voltage (150V)

MBR

F

20

150

CTR

SSG

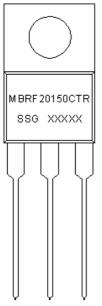
YY WW

1

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Marking Diagram:



Cautions: Molding resin Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
MBRF20150CTR	ITO-220AB (Pb-Free)	50pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V _{RWM}	-	150	V
Max. Average Forward Current	I _{F(AV)}	50% duty cycle @T _c =100℃, rectangular wave form	10(per leg) 20 (per device)	A
Max. Peak One Cycle Non- Repetitive Surge Current (per leg)	I _{FSM}	8.3 ms, half Sine pulse	220	A

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Green Products

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V _{F1}	@ 10A, Pulse, T _J = 25 °C	0.90	V
(per leg) *	V _{F2}	@ 10A, Pulse, T _J = 125 °C	0.80	V
Max. Reverse Current at DC condition (per leg)	I _{R1}	$@V_R = rated V_R$ T _J = 25 °C	1.0	mA
Max. Reverse Current (per leg) *	I _{R2}	$@V_R = rated V_R$ T _J = 125 °C	6.0	mA
Max. Junction Capacitance (per leg)	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz	400	pF
Max. Voltage Rate of Change	dv/dt	-	10,000	V/µs

* Pulse Width < 300µs, Duty Cycle <2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Max. Junction Temperature	TJ	-	-55 to +150	°C
Max. Storage Temperature	T _{stg}	-	-55 to +150	°C
Maximum Thermal Resistance Junction to Case (per leg)	$R_{ extsf{ heta}JC}$	DC operation	3.5	°C/W
Approximate Weight	wt	-	2	g
Case Style		ITO-220AB		

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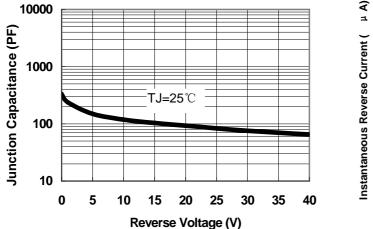


Fig.1-Typical Junction Capacitance

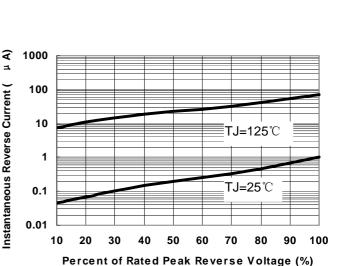


Fig.2-Typical Reverse Characteristics

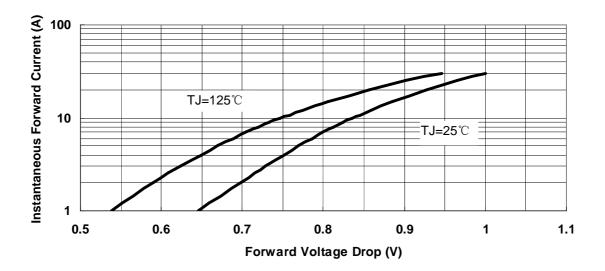


Fig.3-Typical Instantaneous Forward Voltage Characteristics



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