SANGDEST **MICROELECTRONICS**

Technical Data Data Sheet N0838, Rev. A

MBRF10200 SCHOTTKY RECTIFIER

Applications:

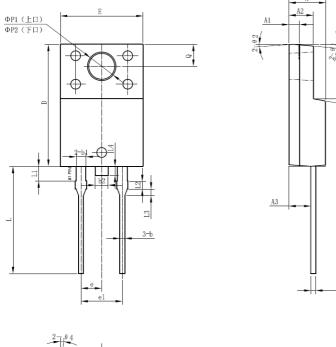
- Switching power supply •
- Converters
- **Free-Wheeling diodes**
- **Reverse battery protection**
- Center tap configuration

Features:

- 150 °C T_J 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

Mechanical Dimensions: In mm

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SYMBOL	MIN.	MIN. TYP.	
Α	4.30	4.50	4.70
A1	1.10	1.30	1.50
A2 A3	2.80	3.00	3.20
A3	2.50	2.70	2.90
b	0.50	0.60	0.75
b1	1.10	1.20	1.35
b2	1.50	1.60	1.75
С	0.55	0.60	0.75
D	14.80	15.00	15.20
E	9.96	10.16	10.36
е	-	2.55	-
e1	-	5.10	-
H1	6.50	6.70	6.90
L	12.70	13.20	13.70
L1	1.60	1.80	2.00
L2	0.80	1.00	1.20
L3 L4	0.60	0.80	1.00
	-	1.10	1.50
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°	
Θ2		4°	
Θ3		10°	
Θ4		5°	
Θ5		5°	

ITO-220AC(HD)

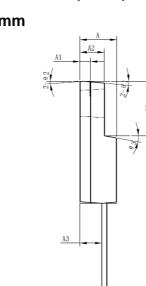
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Green Products

1.Cathode



MBRF10200

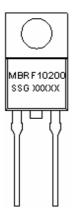




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Marking Diagram:



Where XXXXX is YYWWL

MBR	= Device Type
F	= Package type
10	= Forward Current (10A)
200	= Reverse Voltage (200V)
SSG	= SSG
ΥY	= Year
WW	= Week
L	= Lot Number

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

Ordering Information:

Device	Package	
MBRF10200	ITO-220AC	50pcs / tube
	(Pb-Free)	30pc3 / 10bc

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}	-	100	V
Max. Average Forward Current	I _{F(AV)}	50% duty cycle @T _C = 115°C, rectangular wave form	10	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I _{FSM}	8.3 ms, half Sine pulse	128	А

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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V _{F1}	@ 10A, Pulse, T _J = 25 °C	0.95	V
(per leg)*	V _{F2}	@ 10 A, Pulse, T _J = 125 °C	0.85	V
Max. Reverse Current (per	I _{R1}	$@V_{R} = rated V_{R}$	1.0	mA
leg)*		T _J = 25 °C		
	I_{R2}	$@V_{R} = rated V_{R}$	6	mA
		T _J = 125 °C		
Typical Series Inductance	Ls	Measured lead to lead 5 mm from	8.0	nH
(per leg)		package body		
Max. Voltage Rate of Change	dv/dt	-	10,000	V/µs
RSM Isolation Voltage	V _{ISO}	Clip mounting, the epoxy body	4500	V
(t = 1.0 second, R. H. < =30%,		away from the heatsink edge by		
T _A = 25 °C)		more than 0.110" along the lead		
		direction.		
		Clip mounting, the epoxy body is	3500	
		inside the heatsink.		_
		Screw mounting, the epoxy body	1500	
		is inside the heatsink.		

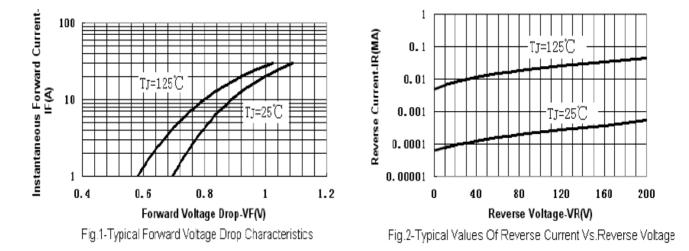
* Pulse Width < 300µs, Duty Cycle <2%

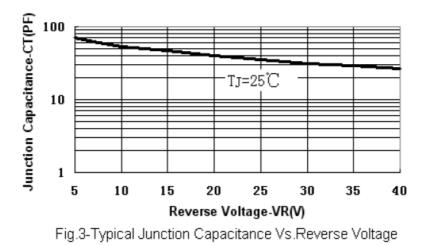
Thermal-Mechanical Specifications:

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	$R_{ extsf{ heta}JC}$	DC operation	4.5	°C/W
Approximate Weight	wt	-	1.6	g
Case Style		ITO-220AC		



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