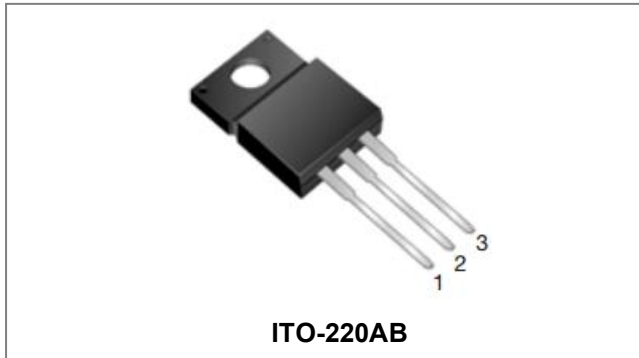


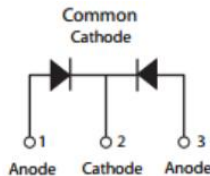
MBRF30150CT SCHOTTKY RECTIFIER



Features

- 175°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

Circuit Diagram



Applications

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

Maximum Ratings (limiting values, T_C = 25°C unless otherwise specified)

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage	V _{RRM}	-	150	V
Working Peak Reverse Voltage	V _{RWM}	-		
DC Blocking Voltage	V _R	-		
Average Rectified Forward Current	I _{F(AV)}	50% duty cycle @T _C =133°C, rectangular wave form	15(Per Leg) 30(Per Device)	A
Peak One Cycle Non-Repetitive Surge Current(Per Leg)	I _{FSM}	8.3ms, Half Sine pulse	150	A

Electrical Characteristics:

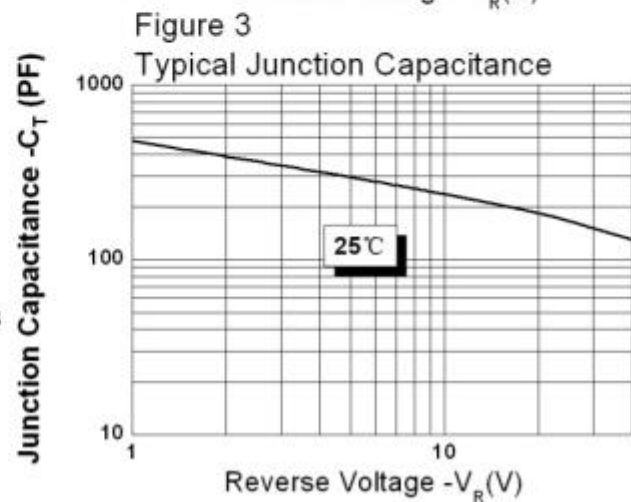
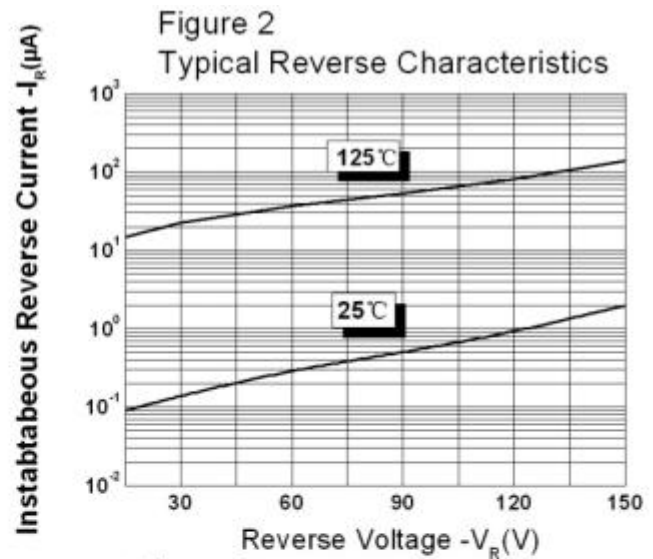
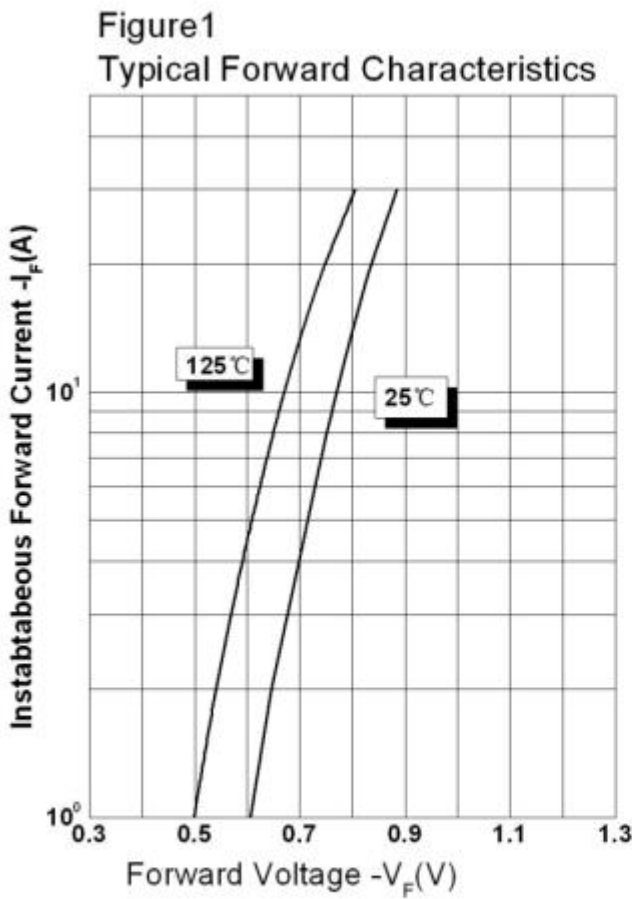
Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop(Per Leg)*	V _{F1}	@ 15A, Pulse, T _J = 25 °C	0.81	1.00	V
	V _{F2}	@ 15A, Pulse, T _J = 125 °C	0.72	0.80	V
Reverse Current at DC condition (Per Leg)*	I _{R1}	@V _R = rated V _R , T _J = 25 °C	0.002	1.0	mA
	I _{R2}	@V _R = rated V _R , T _J = 125 °C	0.2	6.0	mA
Junction Capacitance(Per Leg)	C _T	@V _R = 5V, T _C = 25 °C, f _{SIG} = 1MHz	300	400	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs
RSM Isolation Voltage (t = 1.0 second, R. H. <=30%, T _A = 25 °C)	V _{ISO}	Clip mounting, the epoxy body away from the heatsink edge by more than 0.110" along the lead direction.	-	4500	V
		Clip mounting, the epoxy body is inside the heatsink.	-	3500	
		Screw mounting, the epoxy body is inside the heatsink.	-	1500	

* Pulse width < 300 μs, duty cycle < 2%

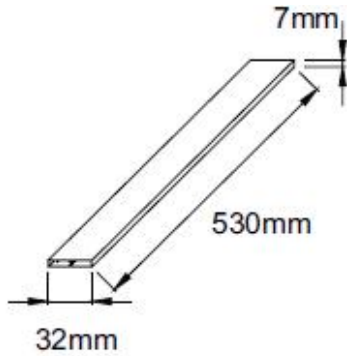
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +175	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-	-55 to +175	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Case(Per Leg)	$R_{\theta JC}$	DC operation	3.5	$^{\circ}\text{C/W}$
Typical Thermal Resistance Junction to Ambient(Per Leg)	$R_{\theta JA}$	DC operation	60	$^{\circ}\text{C/W}$
Approximate Weight	wt	-	2	g

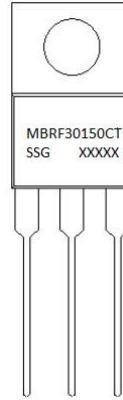
Ratings and Characteristics Curves



Tube Specification



Marking Diagram



Where XXXXX is YYWWL

MBR = Device Type
F = Package type
30 = Forward Current (30A)
150 = Reverse Voltage (150V)
CT = Configuration
SSG = SSG
YY = Year
WW = Week
L = Lot Number

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

Ordering Information

Device	Package	Shipping
MBRF30150CT	ITO-220AB (Pb-Free)	50 pcs/ tube

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