

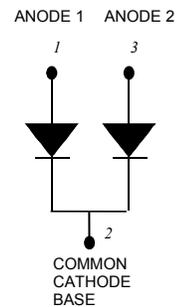
MBR3035WT/MBR3040WT/MBR3045WT SCHOTTKY RECTIFIER

Applications:

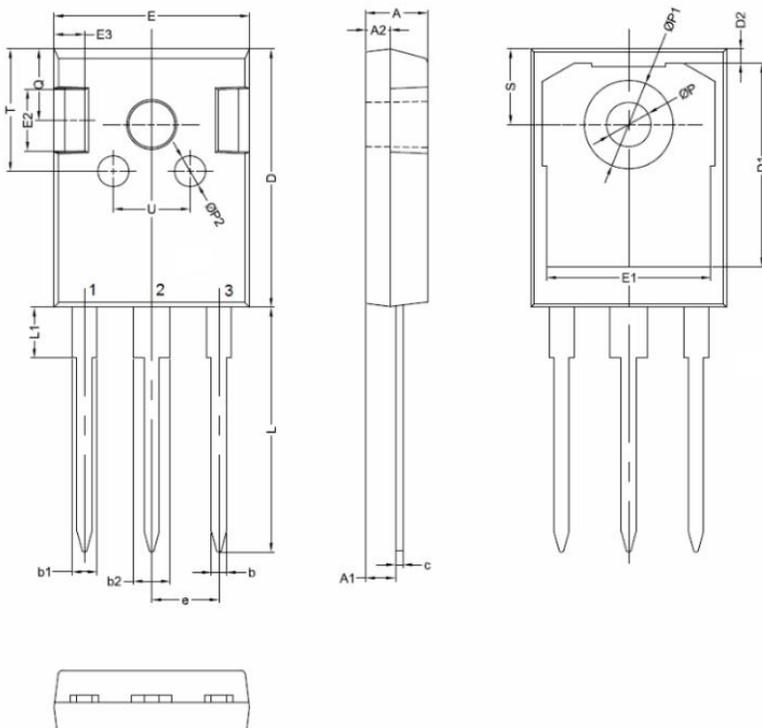
- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Center tap configuration

Features:

- 150 °C T_J operation
- Center tap TO-247AD package
- 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

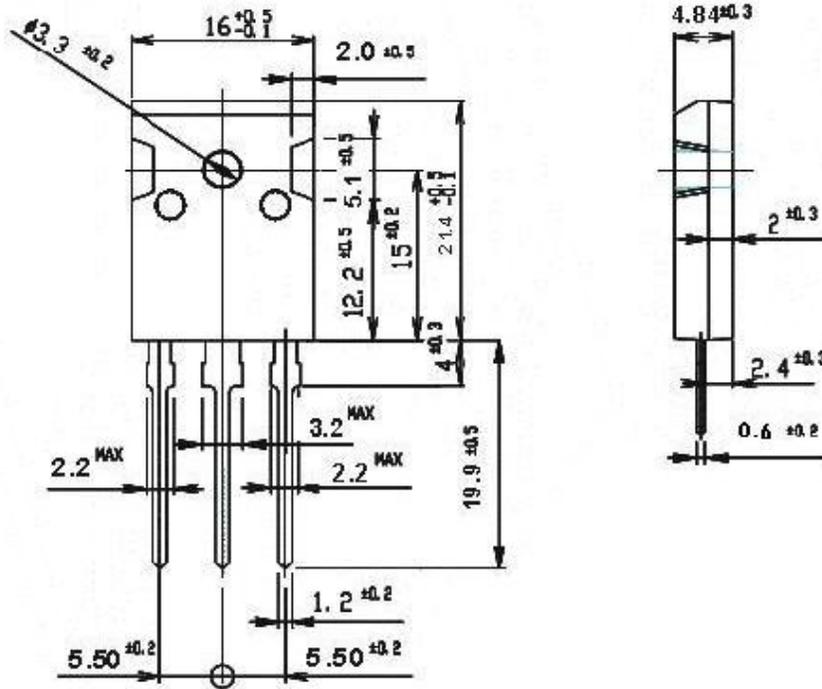


Mechanical Dimensions: In mm/Inches



SYMBOL	MIN.	TYP.	MAX.
A	4.80	5.00	5.20
A1	2.21	2.41	2.61
A2	1.90	2.00	2.10
b	1.10	1.20	1.35
b1		2.00	
b2		3.00	
c	0.55	0.60	0.75
D	20.80	21.00	21.20
D1		16.55	
D2		1.20	
E	15.60	15.80	16.00
E1		13.30	
E2		5.00	
E3		2.50	
e		5.44	
L	19.42	19.92	20.42
L1		4.13	
P	3.50	3.60	3.70
P1			7.40
P2		2.50	
Q		5.80	
S	6.05	6.15	6.25
T		10.00	
U		6.20	

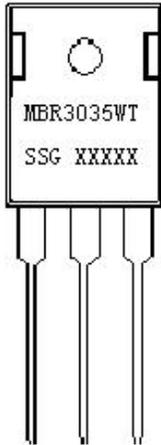
OPTION 1(HD)



OPTION 3(SR)

TO-247AD

Marking Diagram:



Where XXXXX is YYWWL

MBR = Device Type
 30 = Forward Current (30A)
 35 = Reverse Voltage (35V)
 WT = Configuration
 SSG = SSG
 YY = Year
 WW = Week
 L = Lot Number

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

Ordering Information:

Device	Package	Shipping
MBR3035WT-MBR3045WT	TO-247AD (Pb-Free)	25pcs/ 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 Repetitive Reverse Voltage	V_{RRM}	-	35	V
Working Peak Reverse Voltage	V_{RWM}		40	
DC Blocking Voltage	V_R		45	
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ T_C =123 °C, rectangular wave form	15(per leg) 30(per device)	A
Peak Repetitive Forward Current (per leg)	I_{FRM}	Rated V_R , square wave, 20KHz T_C =123 °C	30	A
Max. Peak One Cycle Non- Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	240	A
Peak Repetitive Reverse Current	I_{RRM}	2.0µsec 1.0KHz	2.0	A

**Technical Data
Data Sheet N0015, Rev. -**

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Electrical Characteristics:

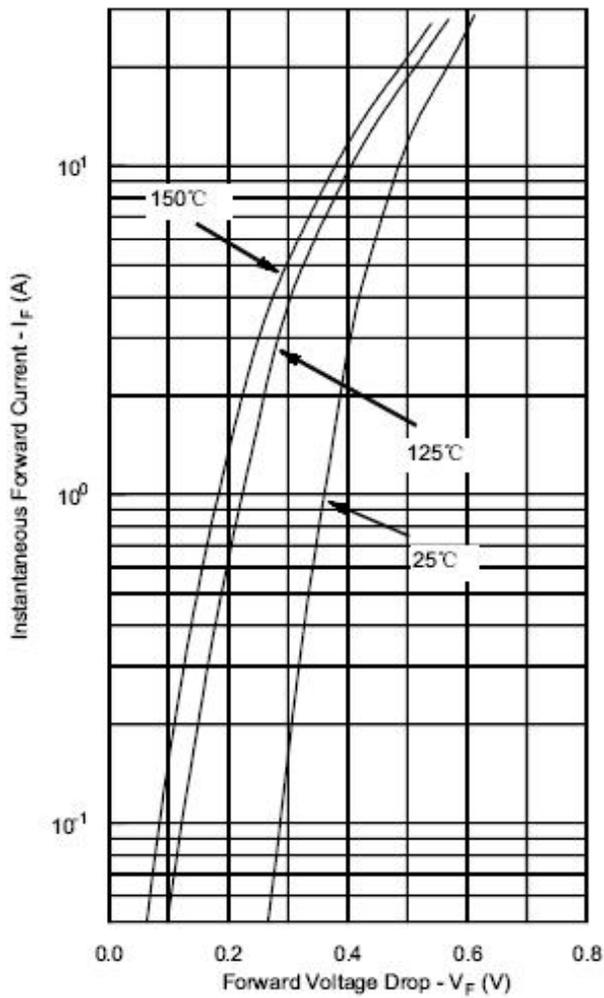
Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 15 A, Pulse, T _J = 25 °C	0.70	V
		@ 30 A, Pulse, T _J = 25 °C	0.84	
	V _{F2}	@ 15 A, Pulse, T _J = 125 °C	0.57	V
		@ 30 A, Pulse, T _J = 125 °C	0.72	
Reverse Current (per leg) *	I _{R1}	@V _R = rated V _R T _C = 25 °C	1.0	mA
	I _{R2}	@V _R = rated V _R T _C = 125 °C	100	mA
Junction Capacitance (per leg)	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz	800	pF
Typical Series Inductance (per leg)	L _S	Measured lead to lead 5 mm from package body	7.5	nH
Voltage Rate of Change	dv/dt	-	10,000	V/μs

Pulse Width < 300μs, Duty Cycle <2%

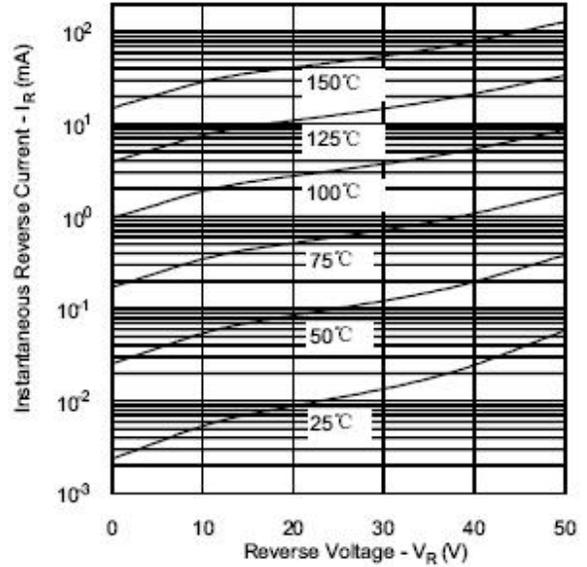
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature Range	T _J	-	-55 to +150	°C
Storage Temperature Range	T _{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case (per leg)	R _{θJC}	DC operation	1.40	°C/W
Approximate Weight	wt	-	6.7	g
Case Style	TO-247AD			

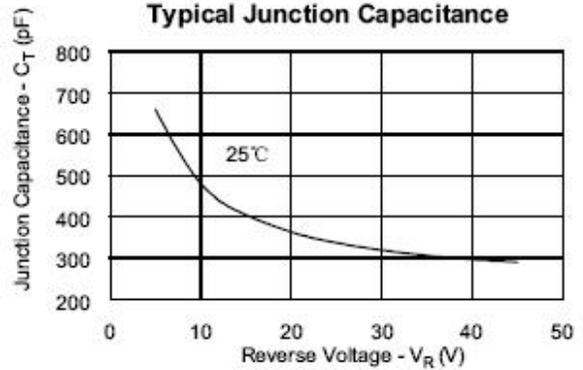
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance





MBR3035WT
MBR3040WT
MBR3045WT

Technical Data
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