Technical Data *Green Products*

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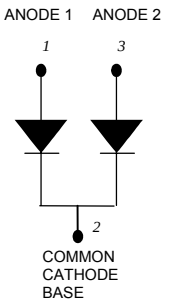
MBR6060WT SCHOTTKY RECTIFIER

Applications:

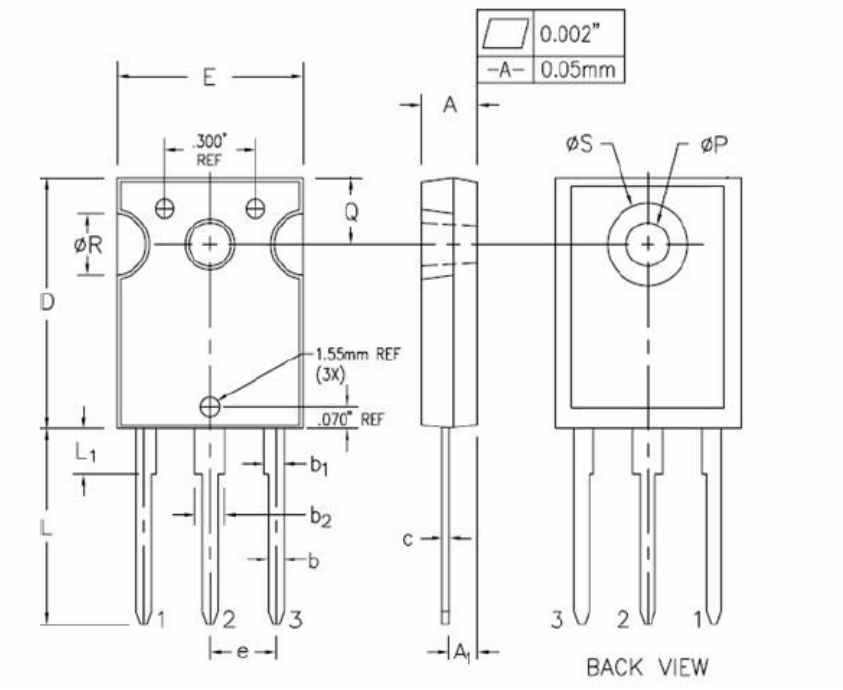
- **Switching power supply**
- **Converters**
- **Free-Wheeling diodes**
- **Reverse battery protection**
- **Center tap configuration**

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



SYMBOL	MILLIMETERS	
	MIN.	MAX.
A	4.58	4.82
A_1	2.29	2.66
b	1.17	1.35
b_1	1.53	1.77
b_2	2.42	2.66
c	0.51	0.71
D	20.32	20.82
E	15.37	15.87
e	5.56 BSC.	
L	15.75	16.25
L_1	3.69	3.93
øP	3.51	3.65
Q	5.34	5.58
øR	4.96	5.20
øS	6.61	6.85

OPTION 1

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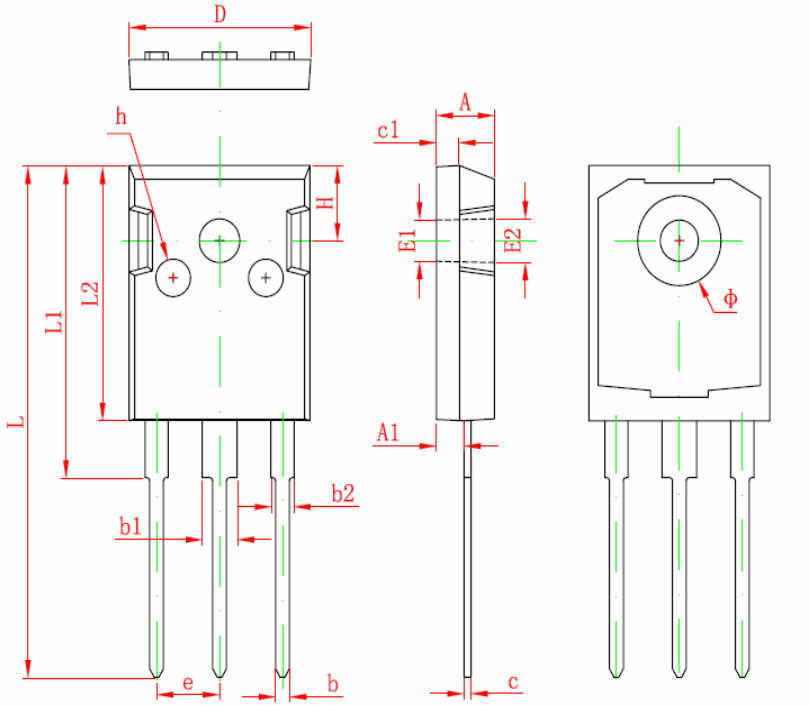
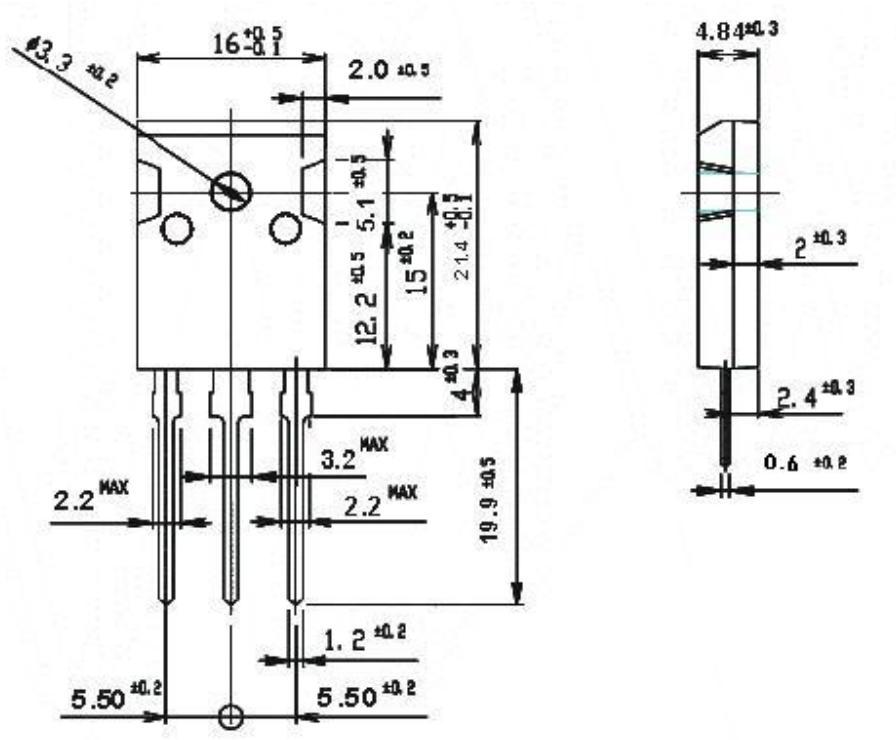


Symbol	Dimensions In Millimeters	
	Min	Max
A	4.850	5.150
A1	2.200	2.600
b	1.000	1.400
b1	2.800	3.200
b2	1.800	2.200
c	0.500	0.700
c1	1.900	2.100
D	15.450	15.750
E1	3.500 REF	
E2	3.600 REF	
L	40.900	41.300
L1	24.800	25.100
L2	20.300	20.600
Φ	7.100	7.300
e	5.450 TYP	
H	5.980 REF	
h	0.000	0.300

OPTION 2



OPTION 3

TO-247AD

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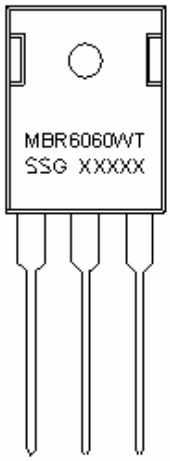
Marking Diagram:



Where XXXXX is YYWWL

MBR = Device Type
60 = Forward Current (60A)
60 = Reverse Voltage (60V)
WT = Configuration
SSG = SSG
YY = Year
WW = Week
L = Lot Number

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

Ordering Information:

Device	Package	Shipping
MBR6060WT	TO-247AD (Pb-Free)	30pcs/ 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 Reverse Voltage	V_{RWM}	-	60	V
Max. Average Forward Current	$IF_{(AV)}$	50% duty cycle @TC =135℃ rectangular wave form	30(per leg) 60(per leg)	A
Repetitive Avalanche Current(per leg)	I_{AR}	Current decaying linearly to zero in 1 μsec Frequency limited by T_J max.V_A=1.5×V_R typical	6	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	510	A

Electrical Characteristics:

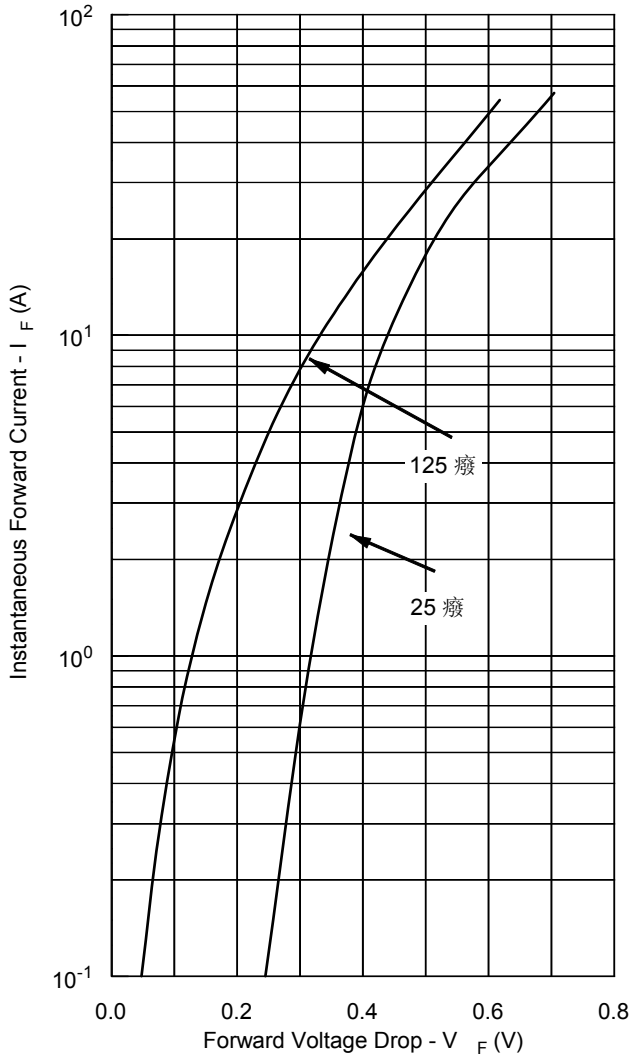
Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop (per leg) *	V_{F1}	@ 30A, Pulse, T_J = 25℃	0.69	V
	V_{F2}	@ 30 A, Pulse, T_J = 125℃	0.64	V
Max. Reverse Current (per leg) *	I_{R1}	@V_R = rated VDC ,T_J = 25℃	1.0	mA
	I_{R2}	@V_R = rated VDC ,T_J = 125℃	150	mA
Max. Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25℃ f_{SIG} = 1MHz	1400	pF
Typical Series Inductance (per leg)	L_S	Measured lead to lead 5 mm from package body	7.5	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/μs

* Pulse Width < 300μs, Duty Cycle <2%
Measured lead to lead 5 mm from package body

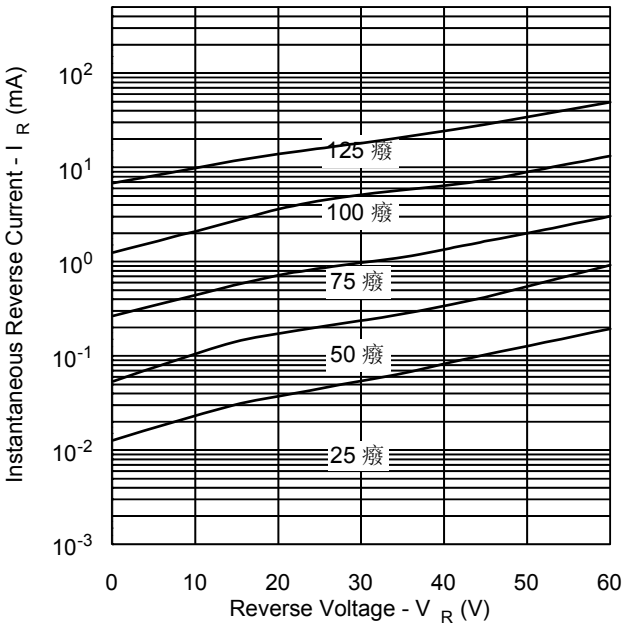
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature Range	T_J	-	-55 to +150	℃
Storage Temperature Range	T_{stg}	-	-55 to +150	℃
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	DC operation	1.0（per device）	℃/W
			0.5（per device）	
Maximum Thermal Resistance，Case to Heat Sink	$R_{\theta CS}$	Mounting surface,smooth and greased	0.24	℃/W
Approximate Weight	wt	-	6	g
Case Style	TO-247AD			

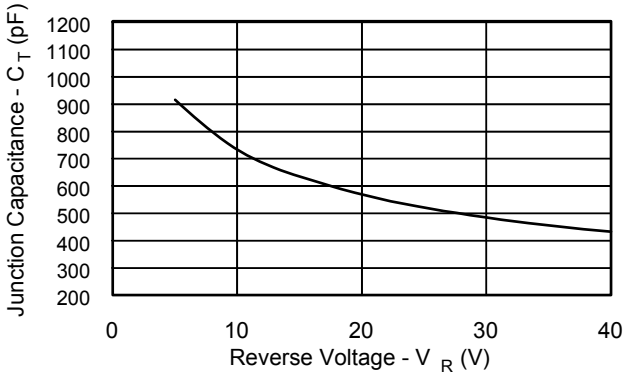
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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