

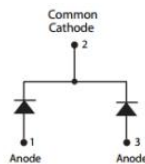
MBR3035WT/MBR3040WT/MBR3045WT **SCHOTTKY RECTIFIER**



Features

- 150 °C T_J operation
- 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:

Characteristics	Symbol	Condition	Max.		Units
			35	40	
Peak Repetitive Reverse Voltage	V _{RRM}	-	35	MBR3035WT	V
Working Peak Reverse Voltage	V _{RWM}		40	MBR3040WT	
DC Blocking Voltage	V _R		45	MBR3045WT	
Average Rectified Forward Current	I _{F(AV)}	50% duty cycle @T _c =123°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, T _c = 25 °C	240		A
Peak Repetitive Forward Current (per leg)	I _{FRM}	Rated V _R ,square wave, 20KHz T _c =123 °C	30		A
Peak Repetitive Reverse Current	I _{RRM}	2.0µsec 1.0KHz	2.0		A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop (Per Leg)*	V _{F1}	@ 15A, Pulse, T _J = 25 °C	0.55	0.70	V
		@ 30A, Pulse, T _J = 25 °C	0.61	0.84	
Reverse Current (Per Leg)*	I _{R1}	@V _R = rated V _R , T _J = 25 °C	0.06	1.0	mA
		@V _R = rated V _R , T _J = 125 °C	3	100	
Junction Capacitance(Per Leg)	C _T	@V _R = 5V, T _c = 25 °C, f _{sig} = 1MHz	700	800	pF
Voltage Rate of Change	dv/dt	-	-	10,000	V/µs

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

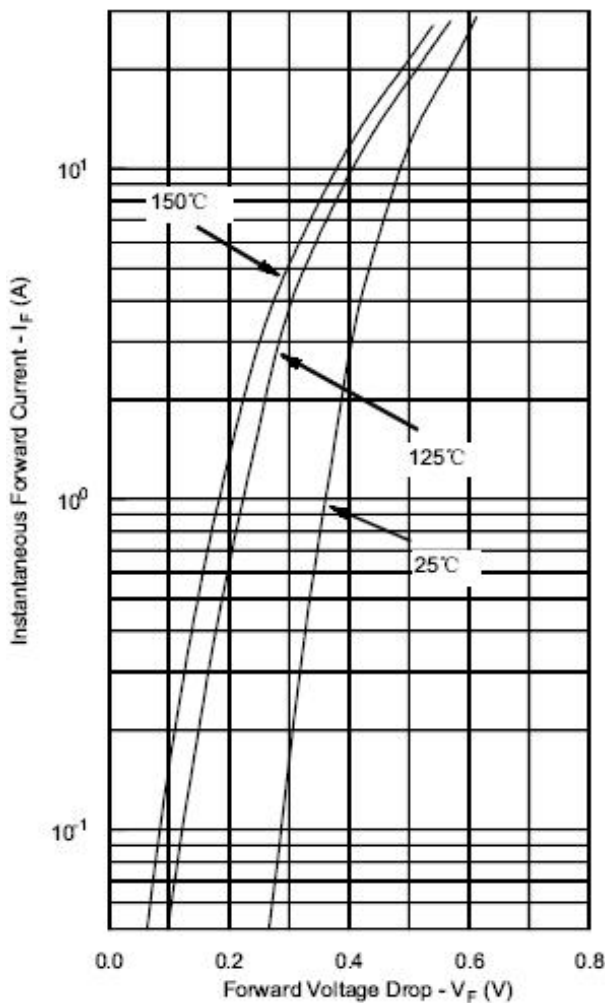
- China - Germany - Korea - Singapore - United States •
- <http://www.smc-diodes.com> - sales@smc-diodes.com •

Thermal-Mechanical Specifications:

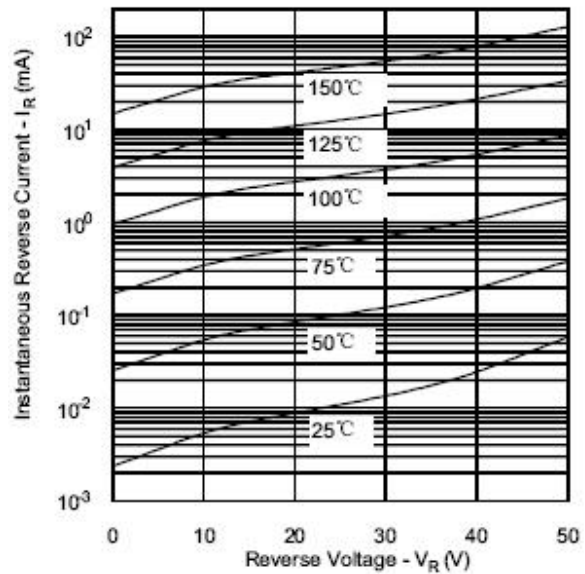
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Case(Per Leg)	$R_{\theta\text{JC}}$	DC operation	1.4	$^{\circ}\text{C/W}$
Approximate Weight	wt	-	6.28	g
Case Style	TO-247AD			

Ratings and Characteristics Curves

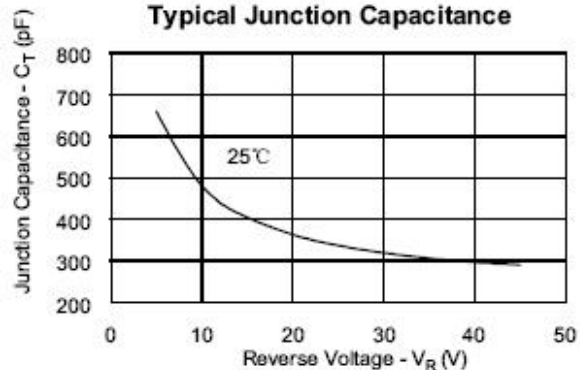
Typical Forward Characteristics



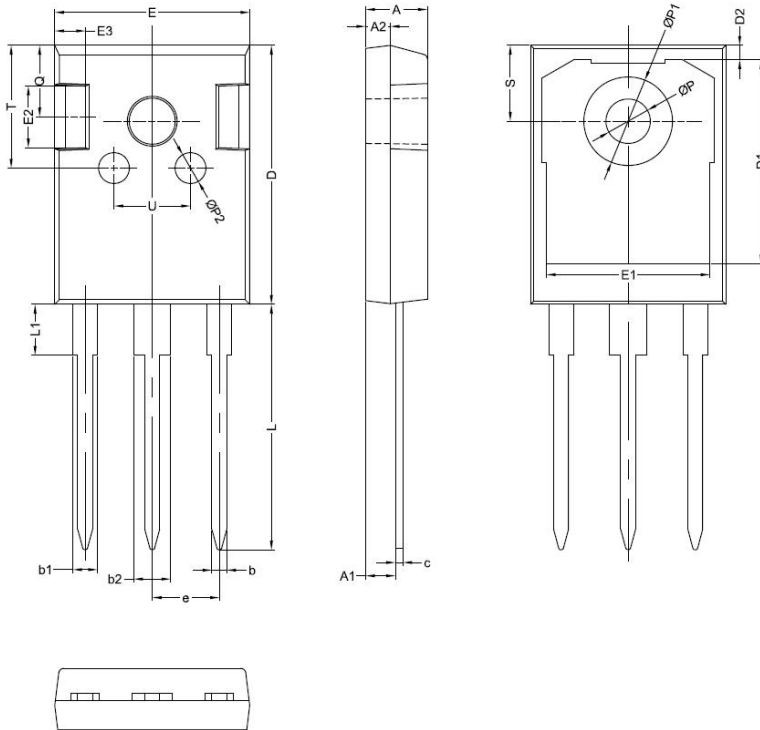
Typical Reverse Characteristics



Typical Junction Capacitance



Mechanical Dimensions TO-247AD



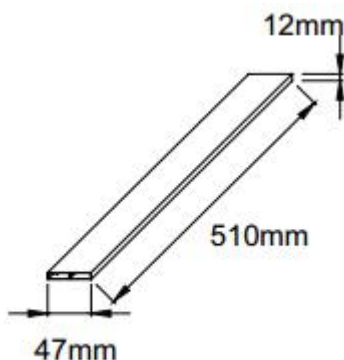
SYMBOL	Millimeters		
	MIN.	TYP.	MAX.
A	4.80	5.00	5.20
A1	2.20	2.41	2.61
A2	1.90	2.00	2.10
b	1.10	1.20	1.40
b1	1.80	2.00	2.20
b2	2.80	3.00	3.20
c	0.50	0.60	0.75
D	20.30	21.00	21.20
D1		16.55	
D2		1.20	
E	15.45	15.80	16.00
E1		13.30	
E2		5.00	
E3		2.50	
e		5.44	
L	19.42	19.92	20.70
L1		4.13	
P	3.50	3.60	3.70
P1	7.1		7.40
P2		2.50	
Q		5.80	
S	6.05	6.15	6.25
T		10.00	
U		6.20	

Ordering Information:

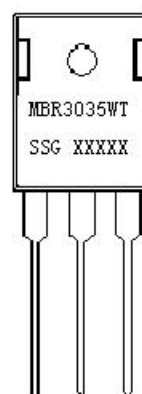
Device	Package	Shipping
MBR3035WT-MBR3045WT	TO-247AD(Pb-Free)	25pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Tube Specification



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

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