

HIGH VOLTAGE POWER SCHOTTKY RECTIFIER**MBR2150****General Description**

The MBR2150 is a high voltage dual Schottky rectifier suited for switch mode power supplies and other power converters. This device is intended for use in medium voltage operation, and particularly, in high frequency circuits where low switching losses and low noise are required.

The MBR2150 is available in standard DO-214AC and DO-15 packages.

Features

- Low Forward Voltage: 0.67V at 125°C
- High Surge Capacity
- Operating Junction Temperature: 150°C
- Guard-ring for Stress Protection
- Lead Free Packages Available

Main Product Characteristics

$I_{F(AV)}$	2A
V_{RRM}	150V
$T_J(MAX)$	150°C
$V_F(MAX)$ ($I_F=2A, T_C=125^\circ C$)	0.67V

Mechanical Characteristics

- Case: Epoxy, Molded
- Epoxy Meets UL 94V-0 @ 0.125in
- Weight (Approximately): 1.9Grams
- Finish: All External Surfaces Corrosion Resistant and Terminal
- Leads are Readily Solderable
- Lead Temperature for Soldering Purpose: 260°C Maximum for 10 Seconds

Applications

- Power Supply – Output Rectification
- Power Management
- Instrumentation



Figure 1. Package Types of MBR2150

HIGH VOLTAGE POWER SCHOTTKY RECTIFIER

MBR2150

Pin Configuration

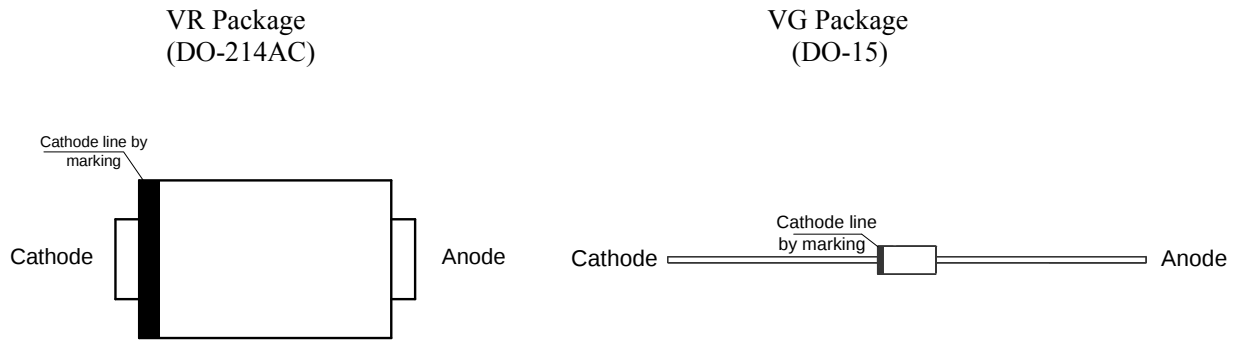
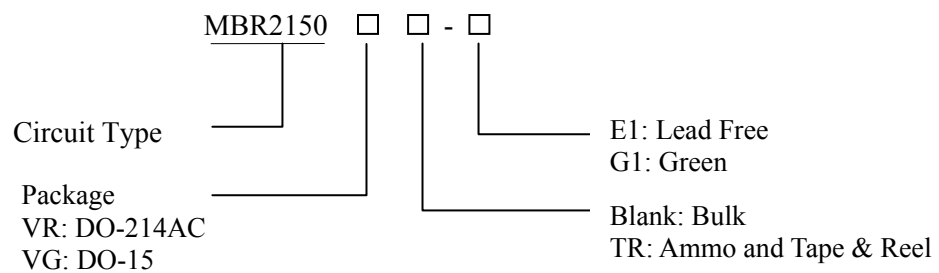


Figure 2. Pin Configuration of MBR2150 (Top View)

Ordering Information



Package	Part Number		Marking ID		Packing Type
	Lead Free	Green	Lead Free	Green	
DO-214AC	MBR2150VRTR-E1	MBR2150VRTR-G1	2150VE	2150VR	Tape & Reel
DO-15	MBR2150VG-E1	MBR2150VG-G1	2150VG	2150GG	Bulk
	MBR2150VGTR-E1	MBR2150VGTR-G1	2150VG	2150GG	Ammo

BCD Semiconductor's Pb-free products, as designated with "E1" suffix in the part number, are RoHS compliant. Products with "G1" suffix are available in green packages.

**HIGH VOLTAGE POWER SCHOTTKY RECTIFIER****MBR2150****Absolute Maximum Ratings (Note 1)**

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	150	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Average Rectified Forward Current (Rated V_R , T_C =TBD)	$I_{F(AV)}$	2	A
Non Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Half Wave, Single Phase, 60Hz)	I_{FSM}	75	A
Operating Junction Temperature Range (Note 2)	T_J	-65 to 150	°C
Storage Temperature Range	T_{STG}	-65 to 150	°C
Voltage Rate of Change (Rated V_R)	dv/dt	10000	V/ μ s
ESD (Machine Model=C)		400	V
ESD (Human Body Model=3B)		8000	V

Note 1: Stresses greater than those listed under “Absolute Maximum Ratings” may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated under “Recommended Operating Conditions” is not implied. Exposure to “Absolute Maximum Ratings” for extended periods may affect device reliability.

Note 2: The heat generated must be less than the thermal conductivity from Junction-to-Ambient: $dP_D/dT_J < 1/\theta_{JA}$.

Recommended Operating Conditions

Parameter	Symbol	Condition	Value	Unit
Maximum Thermal Resistance	θ_{JL}	Junction to Lead	DO-214AC	°C/W
			DO-15	
	θ_{JA}	Junction to Ambient	DO-214AC	
			DO-15	

**HIGH VOLTAGE POWER SCHOTTKY RECTIFIER****MBR2150****Electrical Characteristics**

Parameter	Symbol	Conditions	Value	Unit
Maximum Instantaneous Forward Voltage Drop (Note 3)	$V_F(\text{MAX})$	$I_F=2\text{A}$, $T_C=25^\circ\text{C}$	0.85	V
		$I_F=2\text{A}$, $T_C=125^\circ\text{C}$	0.67	
Maximum Instantaneous Reverse Current (Note 3)	$I_R(\text{MAX})$	Rated DC Voltage, $T_C=25^\circ\text{C}$	0.1	mA
		Rated DC Voltage, $T_C=125^\circ\text{C}$	2.0	

Note 3: Pulse Test: Pulse Width=300 μs , Duty Cycle $\leq 2.0\%$.

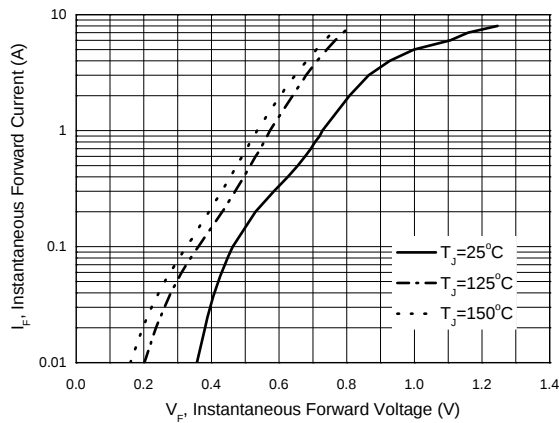
Typical Performance Characteristics

Figure 4. Typical Forward Characteristics

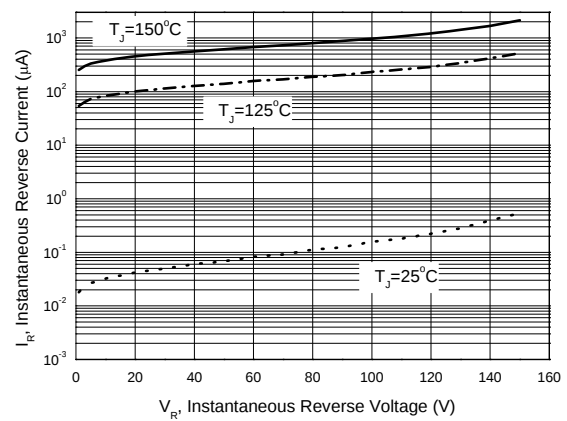
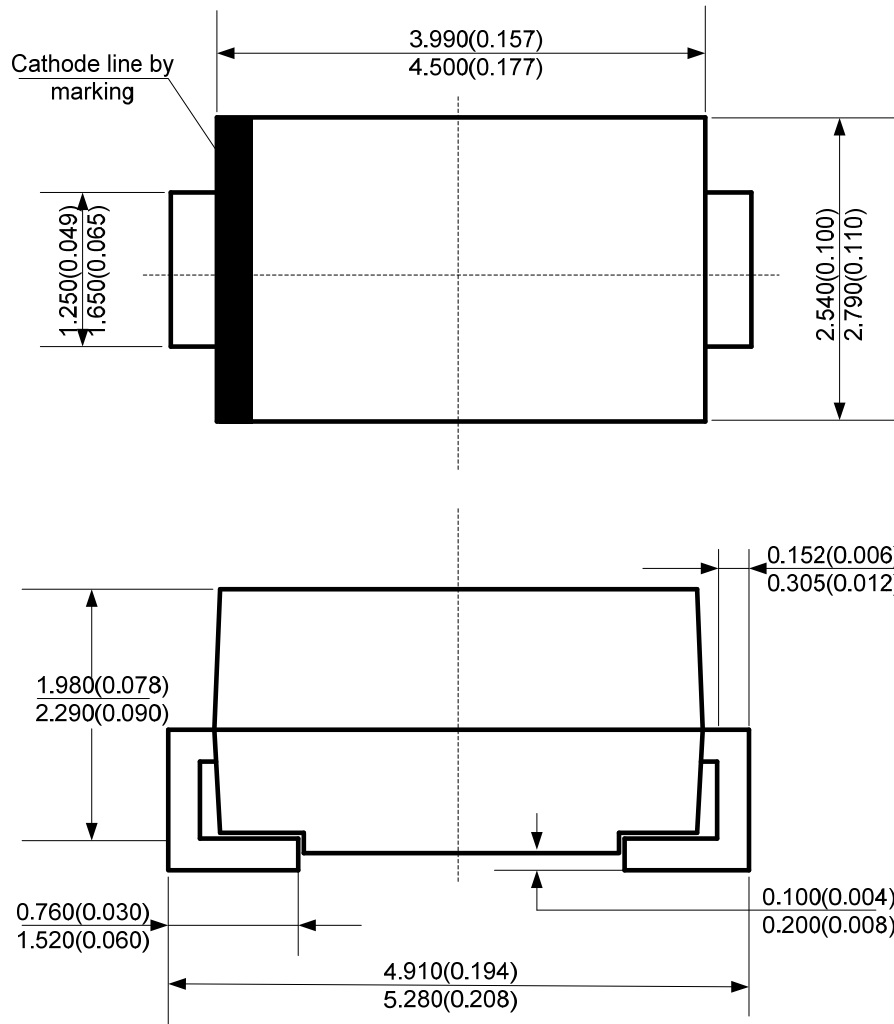


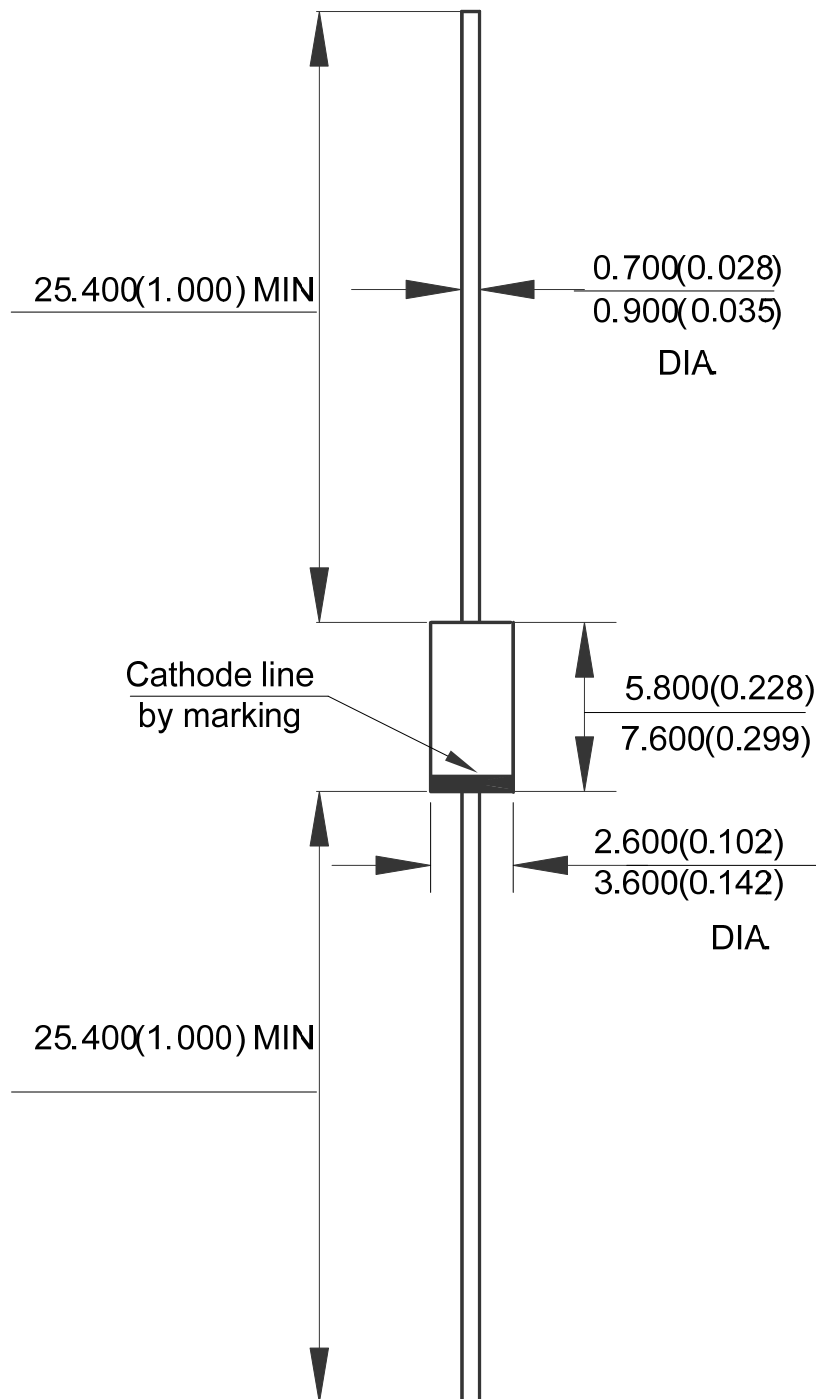
Figure 5. Typical Reverse Characteristics

HIGH VOLTAGE POWER SCHOTTKY RECTIFIER

MBR2150

Mechanical Dimensions

DO-214AC
Unit: mm(inch)


HIGH VOLTAGE POWER SCHOTTKY RECTIFIER
MBR2150
Mechanical Dimensions (Continued)
DO-15
Unit: mm(inch)




BCD Semiconductor Manufacturing Limited

<http://www.bcdsemi.com>

IMPORTANT NOTICE

BCD Semiconductor Manufacturing Limited reserves the right to make changes without further notice to any products or specifications herein. BCD Semiconductor Manufacturing Limited does not assume any responsibility for use of any its products for any particular purpose, nor does BCD Semiconductor Manufacturing Limited assume any liability arising out of the application or use of any its products or circuits. BCD Semiconductor Manufacturing Limited does not convey any license under its patent rights or other rights nor the rights of others.

MAIN SITE

- Headquarters

BCD Semiconductor Manufacturing Limited

No. 1600, Zi Xing Road, Shanghai ZiZhu Science-based Industrial Park, 200241, China
Tel: +86-21-24162266, Fax: +86-21-24162277

- Wafer Fab

Shanghai SIM-BCD Semiconductor Manufacturing Co., Ltd.

800 Yi Shan Road, Shanghai 200233, China
Tel: +86-21-6485 1491, Fax: +86-21-5450 0008

REGIONAL SALES OFFICE

Shenzhen Office

Shanghai SIM-BCD Semiconductor Manufacturing Co., Ltd., Shenzhen Office

Unit A Room 1203, Skyworth Bldg., Gaoxin Ave. I.S., Nanshan District, Shenzhen, China
Tel: +86-755-8826 7951
Fax: +86-755-8826 7865

Taiwan Office

BCD Semiconductor (Taiwan) Company Limited

4F, 298-1, Rui Guang Road, Nei-Hu District, Taipei, Taiwan
Tel: +886-2-2656 2808
Fax: +886-2-2656 2806

USA Office

BCD Semiconductor Corp.

30920 Huntwood Ave. Hayward, CA 94544, USA
Tel : +1-510-324-2988
Fax: +1-510-324-2788



**Стандарт
Электрон
Связь**

Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

Наши контакты:

Телефон: +7 812 627 14 35

Электронная почта: sales@st-electron.ru

Адрес: 198099, Санкт-Петербург,
Промышленная ул, дом № 19, литера Н,
помещение 100-Н Офис 331