



# MBR10100DR

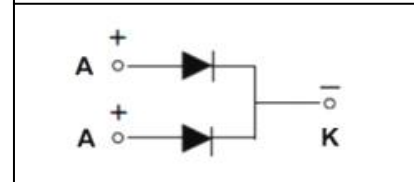
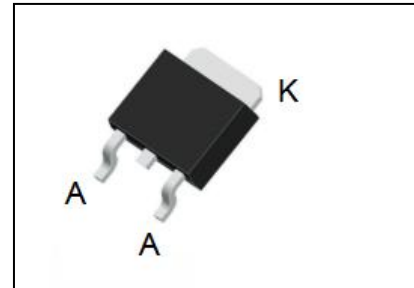
## Dual High Voltage Schottky Rectifier

### ●Features:

- Common Cathode Structure
- Low Power Loss and High Efficiency
- Low Forward Voltage Drop
- High Surge Capability

### ●Application:

- High Frequency Switch
- Free Wheeling, and Polarity Protection Applications



### Absolute Maximum Ratings (Tc=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	100	V
V <sub>R</sub>	Maximum DC Reverse Voltage	100	V
I <sub>F(AV)</sub>	Average Rectified Forward Current, Tc=120°C	5(Per Leg) 10(Per Device)	A
I <sub>FSM</sub>	Peak Forward Surge Current, 8.3ms Half Sine wave	120	A
T <sub>j</sub>	Operating Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55 to +150	°C

### Thermal Characteristics (Tc=25°C unless otherwise noted)

Symbol	Parameter	Max	Unit
R <sub>θJC</sub>	Thermal Resistance, Junction to Case Per Leg	3.0	°C / W

### Electrical Characteristics (Tc=25°C unless otherwise noted)

Symbol	Parameter	Test Conditions	Min	Max	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	I <sub>R</sub> =100μA	100		V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> =100V Tc=25°C V <sub>R</sub> =100V Tc=125°C		0.1 5	mA
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> =5A Tc=25°C I <sub>F</sub> =5A Tc=125°C I <sub>F</sub> =10A Tc=25°C I <sub>F</sub> =10A Tc=125°C		0.87 0.77 0.97 0.87	V

V<sub>F</sub> Typical Values: 0.77V@ I<sub>F</sub>=5A, Tc=25°C

### Typical Performance Characteristics

Figure 1. Forward Current Characteristics

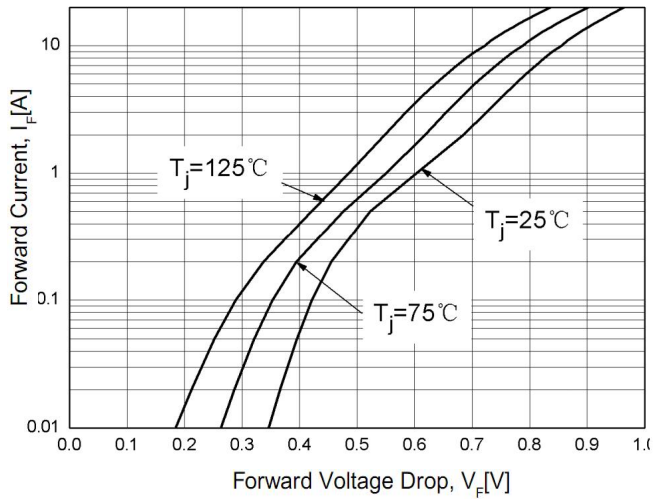


Figure 2. Reverse Leakage Current

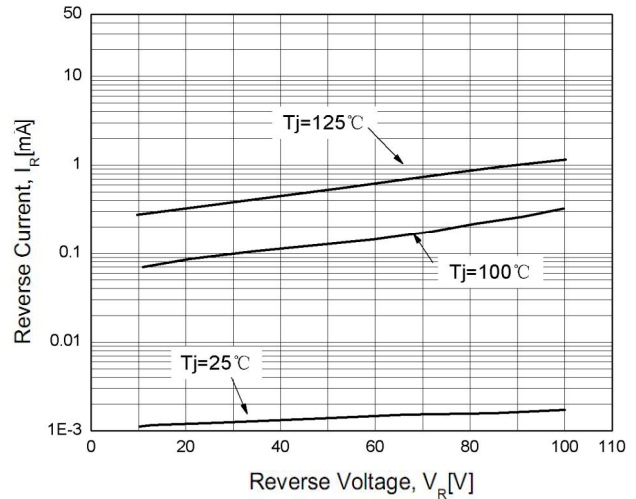


Figure 3. Junction Capacitance

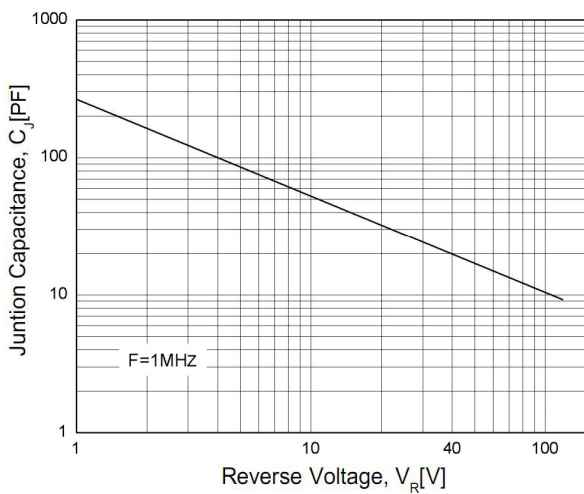
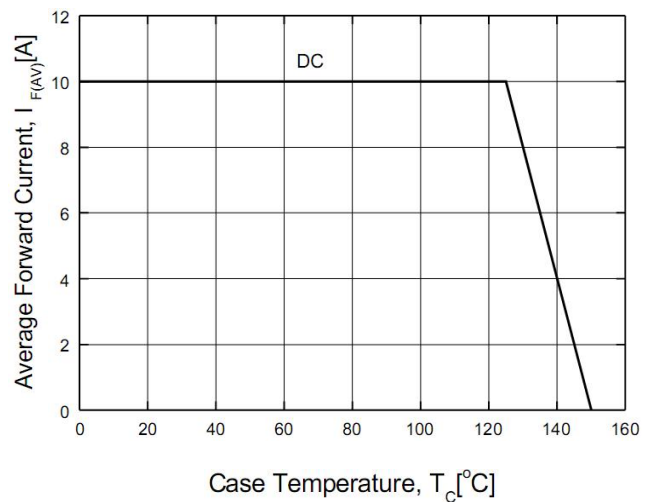


Figure 4. Power Derating





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## Dual High Voltage Schottky Rectifier

### TO-252 Package Dimensions

UNIT: mm

SYMBOL	min	nom	max	SYMBOL	min	nom	max
A	6.40		6.60	D	2.90		3.10
A1	5.20		5.40	D1	0.45		0.55
A2	4.40		4.60	D2	0.45		0.55
A3	4.40		4.60	e		2.30	
A4	0		0.15	E	2.20		2.40
A5	4.65		4.95	F	0.45		0.55
B	5.90		6.20	G		1.70	
B1	1.57		1.77	L	1.40		1.60
C	0.90		0.96	$\theta$ (度)	0		10.00

