



# HBR5200

## 主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	5A
$V_{RRM}$	200 V
$T_j$	175 °C
$V_{F(max)}$	0.75V (@ $T_j=125^{\circ}C$ )

### 用途

- 低压、高频整流
- 低压续流电路和保护电路

### 产品特性

- 低功耗，高效率
- 良好的高温特性
- 有过压保护环，高可靠性
- 环保（RoHS）产品

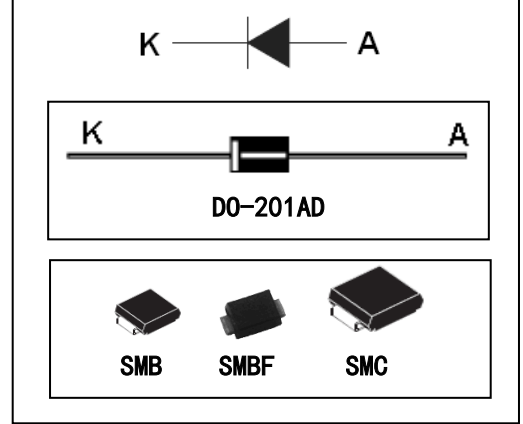
### APPLICATIONS

- Low voltage, high frequency rectifier
- Free wheeling diodes, polarity protection applications

### FEATURES

- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability
- RoHS product

## 封装 Package



## 订货信息 ORDER MESSAGE

订货型号 Order codes				印 记 Marking	封 装 Package
有卤-条管 Halogen-Tube	无卤-条管 Halogen Free-Tube	有卤-编带 Halogen-Reel	无卤-编带 Halogen Free-Reel		
N/A	N/A	HBR5200-D-A	HBR5200-D-AR	HBR5200	DO-201AD
N/A	N/A	HBR5200-XC-A	HBR5200-XC-AR	HBR5200	SMB
N/A	N/A	HBR5200-XD-A	HBR5200-XD-AR	HBR5200	SMBF
N/A	N/A	HBR5200-XE-A	HBR5200-XE-AR	HBR5200	SMC
有卤-散装 Halogen-Bulk	无卤-散装 Halogen Free-Bulk			印 记 Marking	封 装 Package
HBR5200-D2-F	HBR5200-D2-FR			HBR5200	DO-201AD-B2



**绝对最大额定值 ABSOLUTE RATINGS (Tc=25℃)**

项 目 Parameter	符 号 Symbol	数 值 Value	单 位 Unit
最大反向重复峰值电压 Repetitive peak reverse voltage	$V_{RRM}$	200	V
最大直流阻断电压 Maximum DC blocking voltage	$V_{DC}$	200	V
正向平均整流电流T <sub>c</sub> =125℃ Average Rectified Forward Current	$I_{F(AV)}$	5	A
正向峰值浪涌电流 Surge non repetitive forward current (额定负载 8.3ms 半正弦波—按 JEDEC 方法) 8.3 ms single half-sine-wave (JEDEC Method)	$I_{FSM}$	120	A
最高结温 Maximum junction temperature	$T_j$	175	℃
储存温度 Storage temperature range	$T_{STG}$	-40~+150	℃

**电特性 ELECTRICAL CHARACTERISTICS**

项 目 Parameter	测试条件 Tests conditions		最小值 Value(min)	典型值 Value(typ)	最大值 Value(max)	单 位 Unit
$I_R$	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$			10	μA
	$T_j = 125^\circ\text{C}$				5	mA
$V_F$	$T_j = 25^\circ\text{C}$	$I_F = 5\text{A}$		0.81	0.85	V
	$T_j = 125^\circ\text{C}$			0.70	0.75	V

**热特性 THERMAL CHARACTERISTICS**

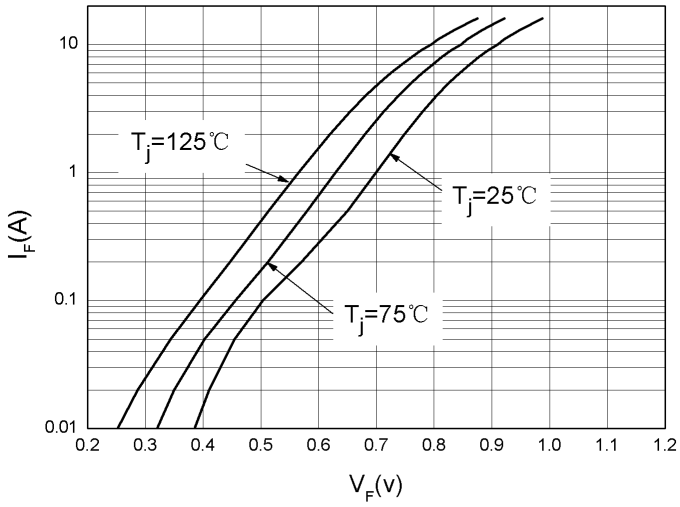
项 目 Parameter		符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	DO-201AD(B2)	$R_{th(j-c)}$		25	℃/W
	SMB/SMBF		40		
	SMC		37		
结到环境的热阻 Thermal resistance from junction to ambient	DO-201AD(B2)	$R_{th(j-a)}$		70	℃/W
	SMB/SMBF		140		
	SMC		120		



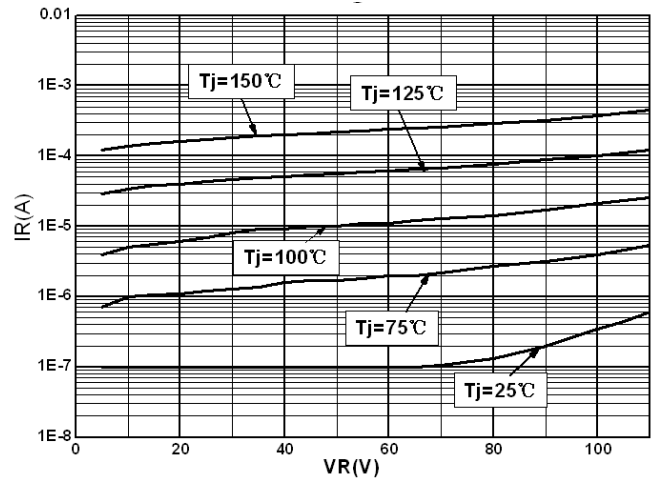


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

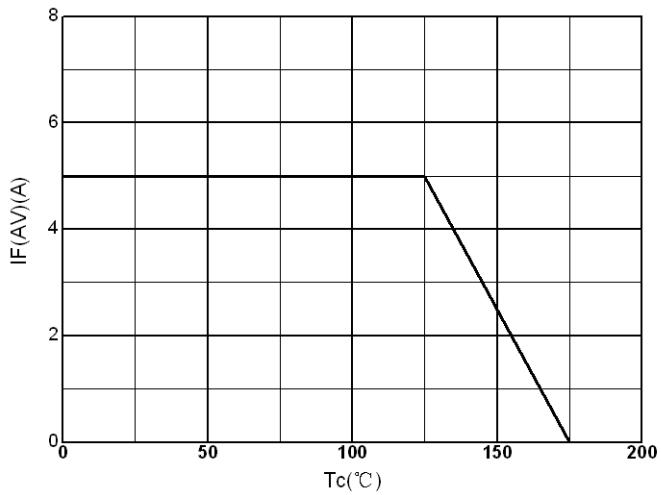
$I_F$  vs  $V_F$



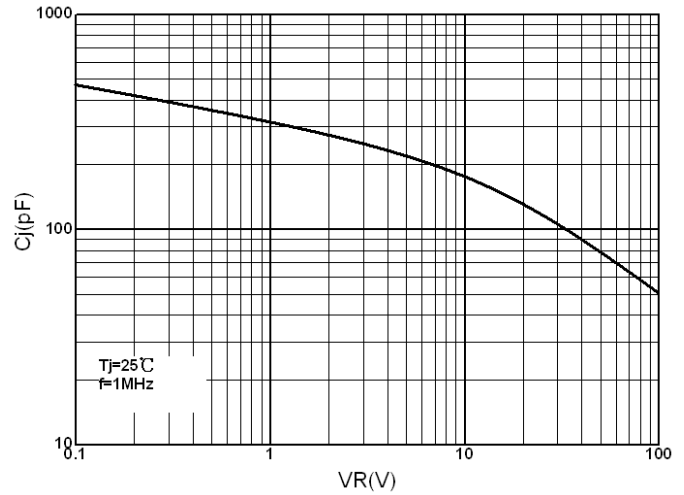
$I_R$  vs  $V_R$

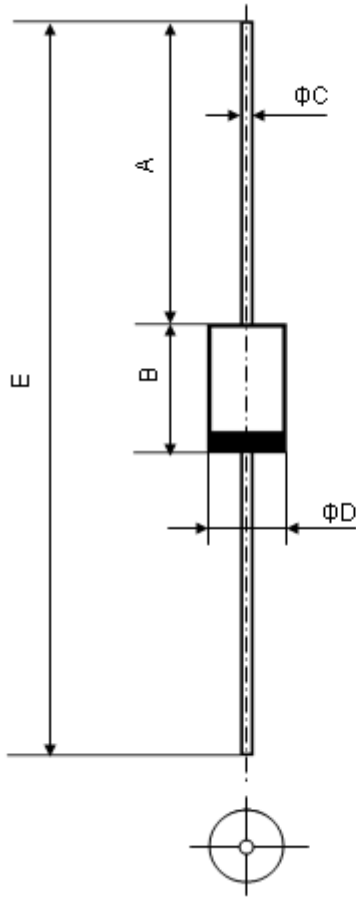


$I_F(AV)$  vs  $T_C$



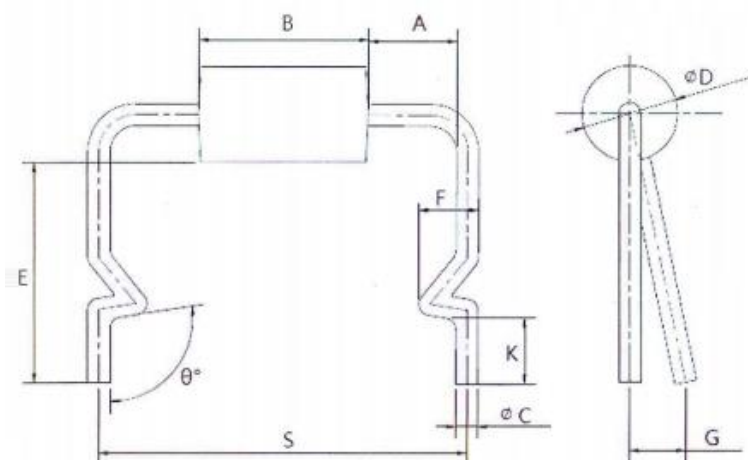
$C_J$  vs  $V_R$





符号 Symbol	Min	Max
A	25.4	--
B	8.5	9.5
C	1.2	1.3
D	5.0	5.6
E	59.5	64

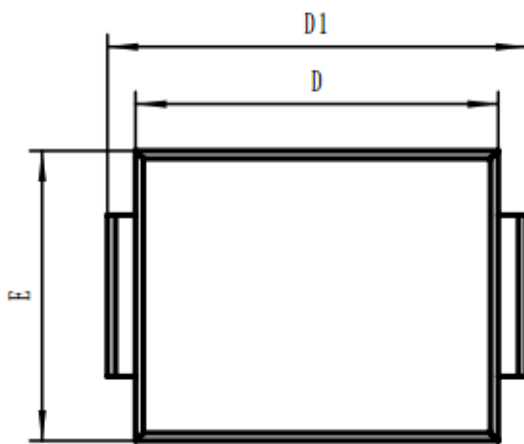
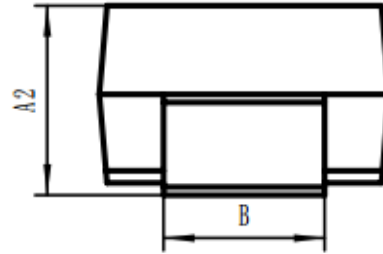
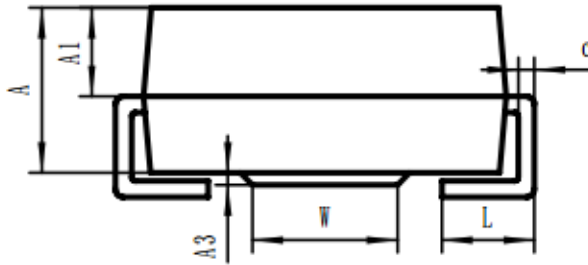




符号 <sup>1)</sup> Symbol <sup>1)</sup>	Min. <sup>2)</sup>	Max. <sup>3)</sup>
A <sup>2)</sup>	1.0 <sup>2)</sup>	— <sup>2)</sup>
B <sup>2)</sup>	8.5 <sup>2)</sup>	9.5 <sup>2)</sup>
C <sup>2)</sup>	1.2 <sup>2)</sup>	1.3 <sup>2)</sup>
D <sup>2)</sup>	5.0 <sup>2)</sup>	5.6 <sup>2)</sup>
E <sup>2)</sup>	(12.0) <sup>2)</sup>	
F <sup>2)</sup>	2.2 <sup>2)</sup>	2.8 <sup>2)</sup>
G <sup>2)</sup>	— <sup>2)</sup>	2.0 <sup>2)</sup>
K <sup>2)</sup>	3.5 <sup>2)</sup>	4.0 <sup>2)</sup>
S <sup>2)</sup>	19.5 <sup>2)</sup>	20.5 <sup>2)</sup>
$\theta^\circ$ <sup>2)</sup>	100 <sup>2)</sup>	140 <sup>2)</sup>

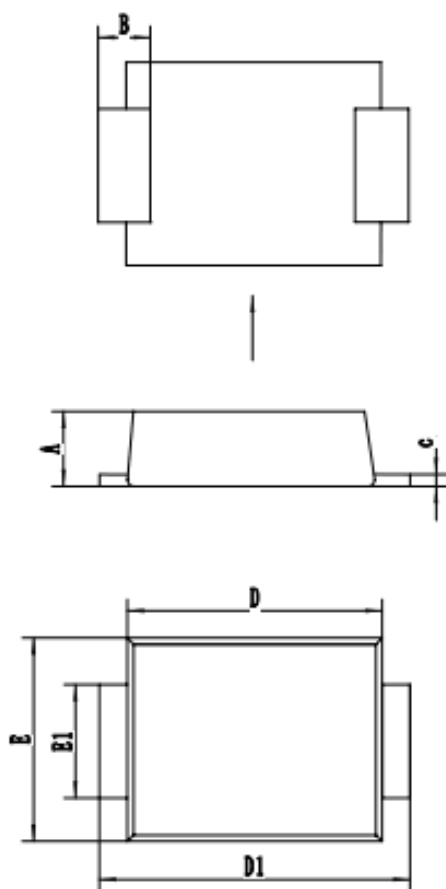
DO-201AD-B2 尺寸





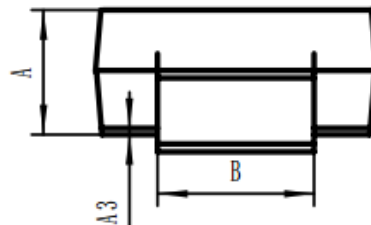
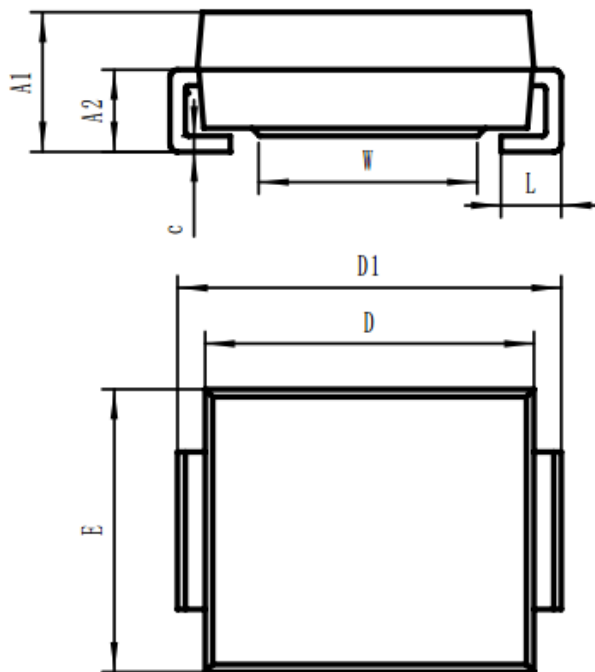
SYMBOL	MIN	MAX
A	1.85	2.25
A1	0.90	1.30
A2	2.10	2.60
A3	0.10	0.20
B	1.80	2.20
c	0.10	0.30
D	4.30	4.70
D1	4.95	5.45
E	3.40	3.80
L	0.80	1.50
W	1.60	2.00





符号 symbol	Min	Max
A	1.10	1.30
B	0.80	1.10
C	0.15	0.25
D	4.3	4.7
D1	5.3	5.7
E	3.4	3.8
E1	1.90	2.10





SYMBOL	MIN	MAX
A	2.30	2.70
A1	2.40	3.00
A2	1.30	1.90
A3	0.10	0.20
B	2.80	3.10
c	0.15	0.25
D	6.70	7.10
D1	7.70	8.30
E	5.80	6.20
L	0.90	1.60
W	4.30	4.70





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