



# HBR3150

## 主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	3A
$V_{RRM}$	150 V
$T_j$	175 °C
$V_{F(max)}$	0.76V (@ $T_j=125^{\circ}C$ )

### 用途

- 低压、高频整流
- 低压续流电路和保护电路

### 产品特性

- 轴向结构
- 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

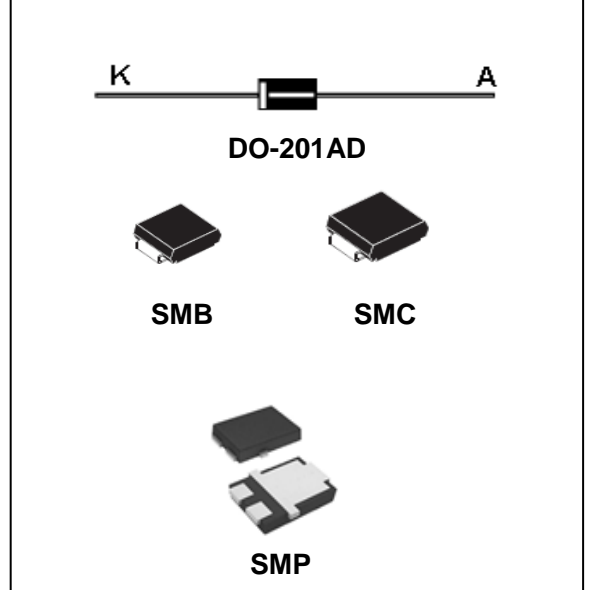
### APPLICATIONS

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

### FEATURES

- Axial Lead Rectifier
- 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	HBR3150-D-A	HBR3150-D-AR	HBR3150	DO-201AD
N/A	N/A	HBR3150-XC-A	HBR3150-XC-AR	HBR3150	SMB
N/A	N/A	HBR3150-XE-A	HBR3150-XE-AR	HBR3150	SMC
N/A	N/A	HBR3150-XF-A	HBR3150-XF-AR	HBR3150	SMP



**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	$V_{RRM}$	150	V
最大直流阻断电压 Maximum DC blocking voltage	$V_{DC}$	150	V
正向平均整流电流T <sub>C</sub> =125℃ Average Rectified Forward Current	$I_{F(AV)}$	3	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)	$I_{FSM}$	75	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 <sub>j</sub> =25℃	$V_R=V_{RRM}$			10	μA
	T <sub>j</sub> =125℃				5	mA
$V_F$	T <sub>j</sub> =25℃	$I_F=3A$		0.80	0.9	V
	T <sub>j</sub> =125℃			0.72	0.76	V

**热特性 THERMAL CHARACTERISTICS**

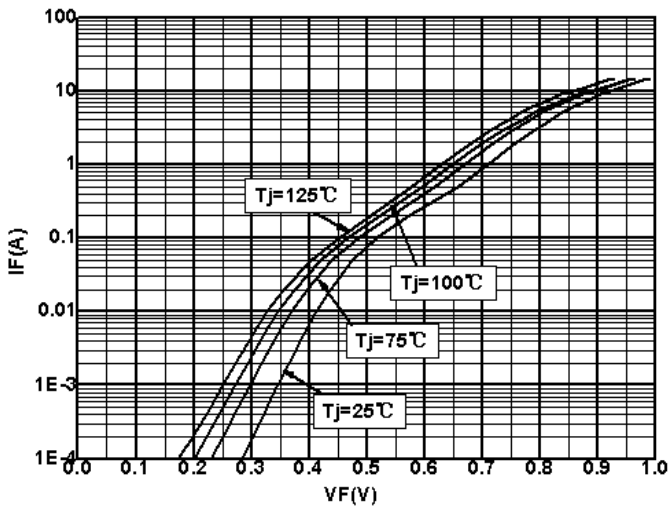
项 目 Parameter		符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到环境的热阻 Thermal resistance from junction to ambient	DO-201AD	$R_{th(j-a)}$		70	℃/W
	SMB			140	
	SMC			120	
	SMP			200	
结到管壳的热阻 Thermal resistance from junction to case	DO-201AD	$R_{th(j-c)}$		25	℃/W
	SMB			40	
	SMC			37	
	SMP			43	



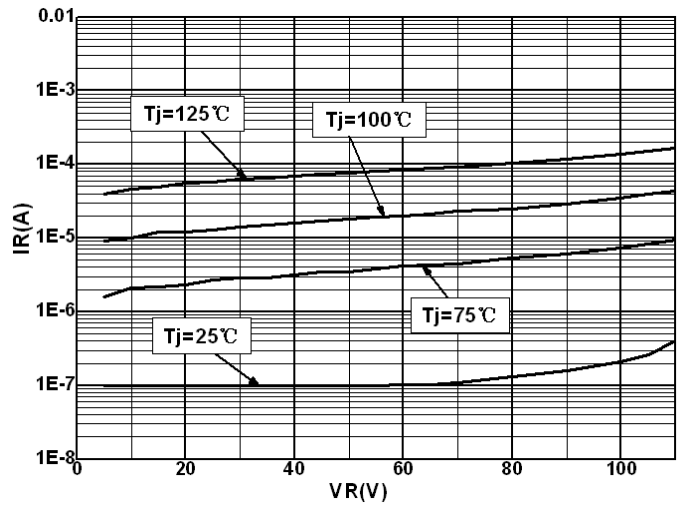


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

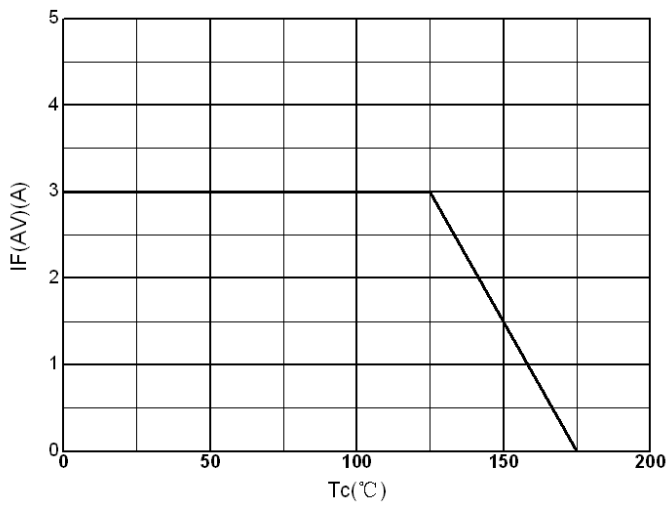
IF vs VF



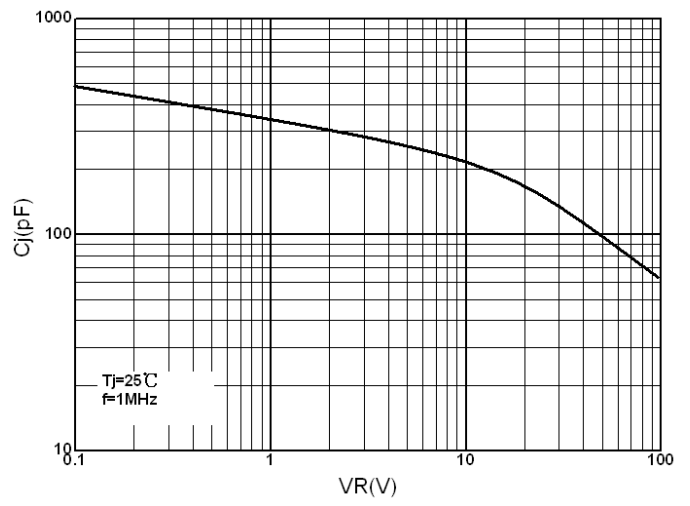
IR vs VR

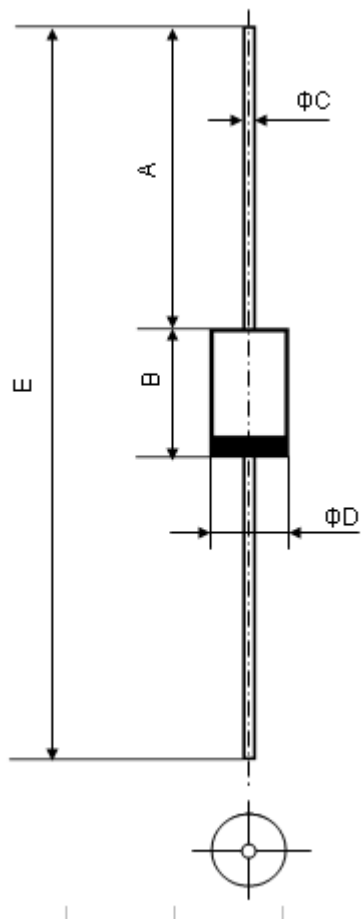


IF(AV) vs Tc



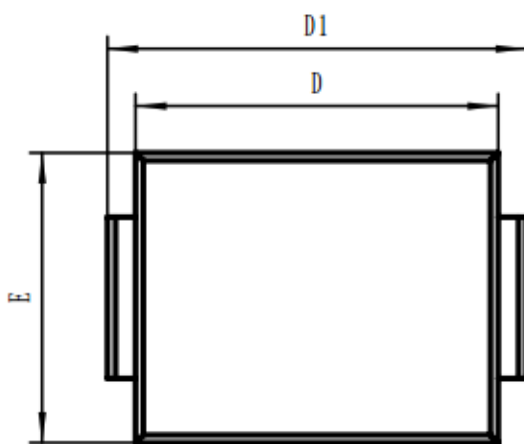
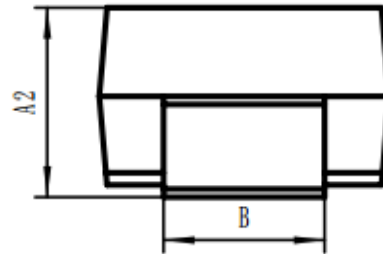
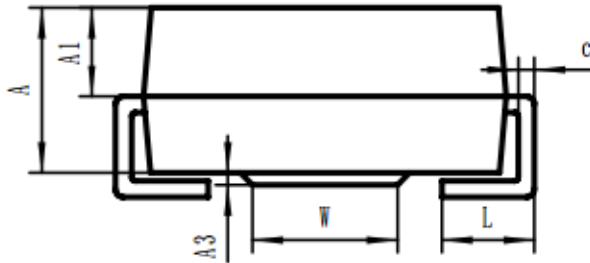
Cj vs VR





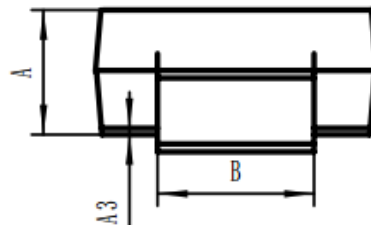
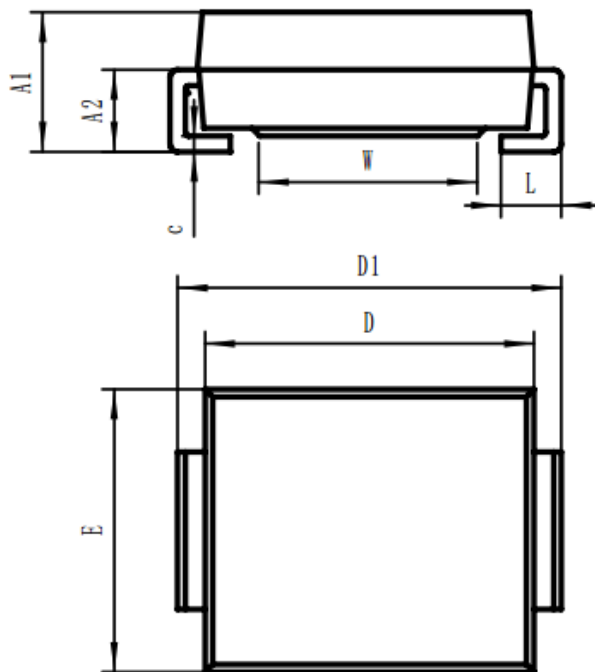
符号 Symbol	Min	Max
A	25.4	--
B	8.5	9.5
C	1.2	1.3
D	5.0	5.6
E	59.5	64





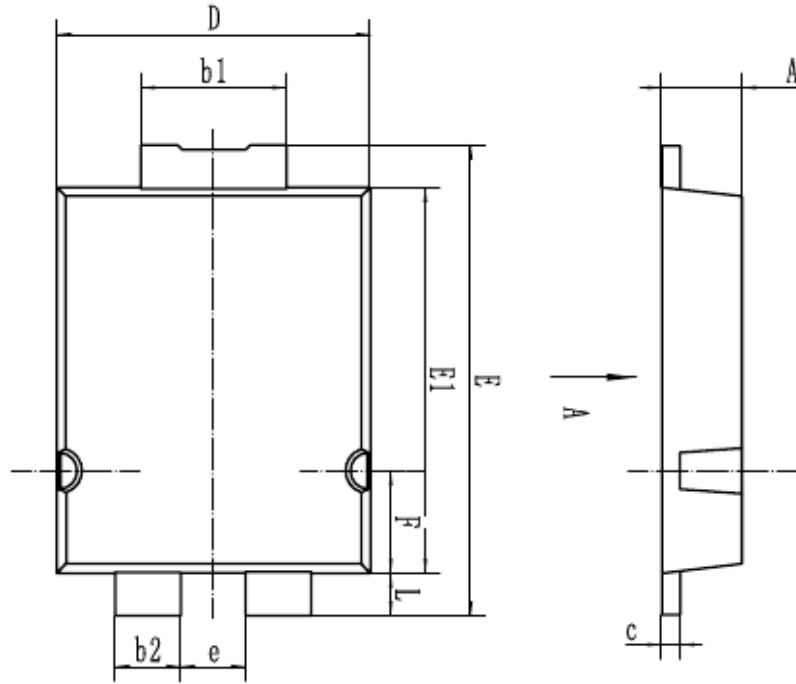
SYMBOL	MIN	MAX
A	1.85	2.25
A1	0.90	1.30
A2	2.10	2.60
A3	0.10	0.20
B	1.80	2.20
c	0.10	0.30
D	4.30	4.70
D1	4.95	5.45
E	3.40	3.80
L	0.80	1.50
W	1.60	2.00



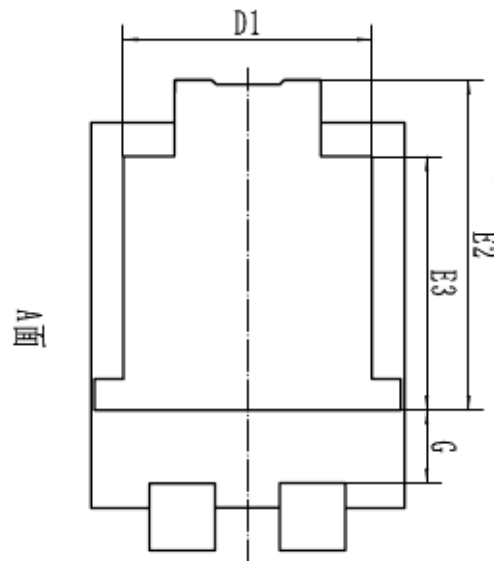


SYMBOL	MIN	MAX
A	2.30	2.70
A1	2.40	3.00
A2	1.30	1.90
A3	0.10	0.20
B	2.80	3.10
c	0.15	0.25
D	6.70	7.10
D1	7.70	8.30
E	5.80	6.20
L	0.90	1.60
W	4.30	4.70





符号 Symbol	Min	Max
A	1.00	1.40
b1	1.70	2.30
b2	0.60	1.20
c	0.10	0.40
D	4.00	4.60
D1	3.10	3.70
E	6.20	6.80
E1	5.00	5.60
E2	4.25	4.85
E3	3.20	3.80
e	0.70	1.10
F	1.35	1.95
G	0.90	
L	0.40	0.80





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