



HBR5200P

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	5A
V_{RRM}	200 V
T_j	175 °C
$V_{F(max)}$	0.78V (@ $T_j=125^{\circ}C$)

用途

- 低压、高频整流
- 低压续流电路和保护电路

APPLICATIONS

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

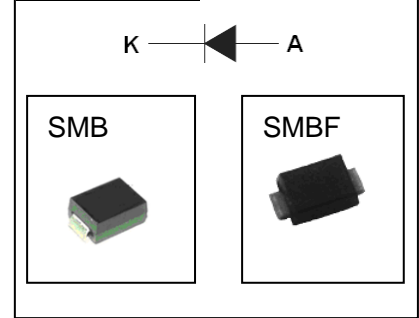
产品特性

- 贴片结构
- 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

FEATURES

- Surface Mounting 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	N/A	HBR5200P-XC-AR	HBR5200	SMB
N/A	N/A	N/A	HBR5200P-XD-AR	HBR5200	SMBF

**绝对最大额定值 ABSOLUTE RATINGS** ($T_c=25^{\circ}\text{C}$)

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 $T_c=120^{\circ}\text{C}$ 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}	100	A
最高结温 Maximum junction temperature	T_j	175	$^{\circ}\text{C}$
储存温度 Storage temperature range	T_{STG}	-40~+150	$^{\circ}\text{C}$

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
V_{BR}	$T_j=25^{\circ}\text{C}$	$I_R=1\text{mA}$	200			V
I_R	$T_j=25^{\circ}\text{C}$	$V_R=V_{RRM}$			0.1	mA
	$T_j=125^{\circ}\text{C}$				5	mA
V_F	$T_j=25^{\circ}\text{C}$	$I_F=5\text{A}$		0.81	0.91	V
	$T_j=125^{\circ}\text{C}$			0.67	0.78	V

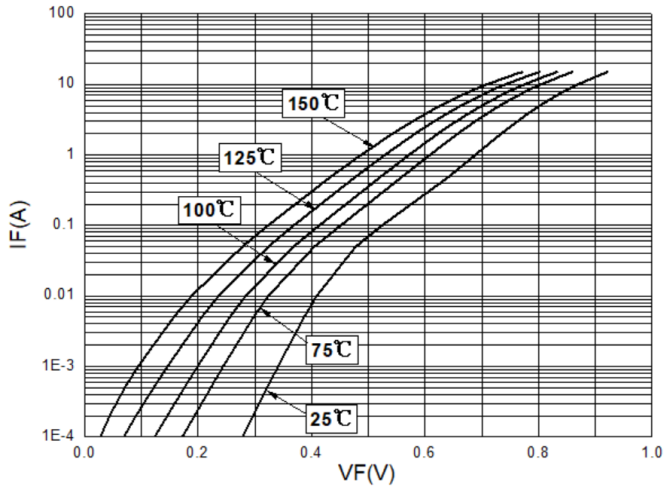
热特性 THERMAL CHARACTERISTICS

项 目 Parameter		符 号 Symbol	数 值 Value	单 位 Unit
结到环境的热阻 Thermal resistance from junction to ambient	SMB/SMBF	$R_{th(j-a)}$	58	$^{\circ}\text{C/W}$
结到管壳的热阻 Thermal resistance from junction to case	SMB/SMBF	$R_{th(j-c)}$	17	$^{\circ}\text{C/W}$

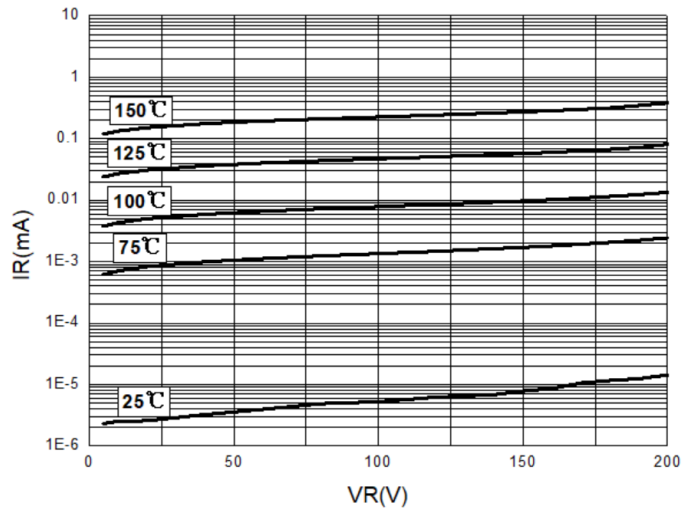


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

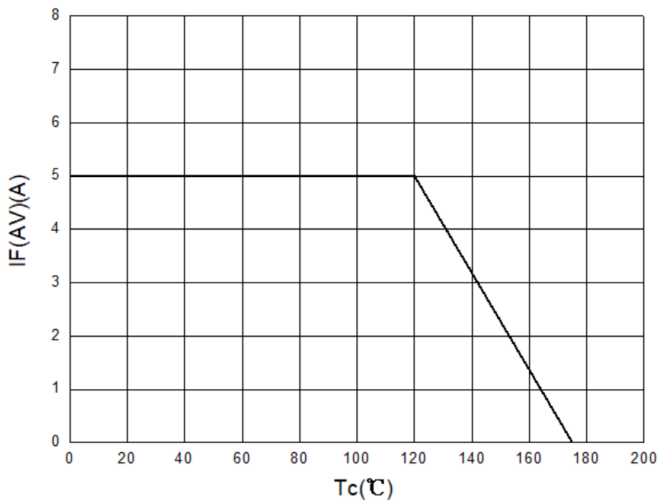
IF vs VF



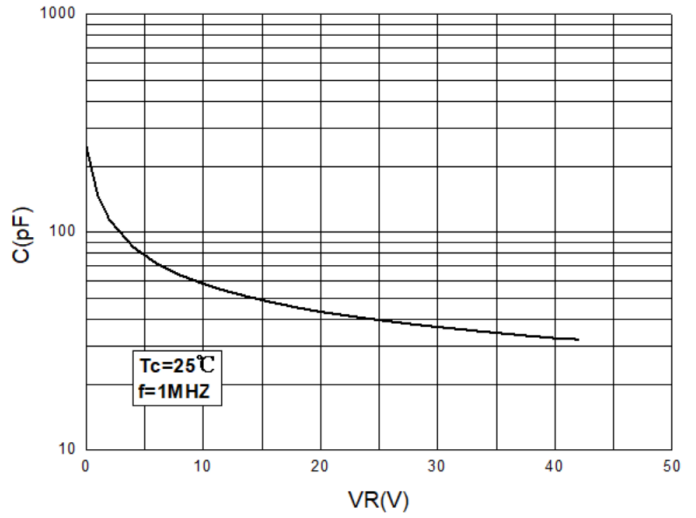
IR vs VR

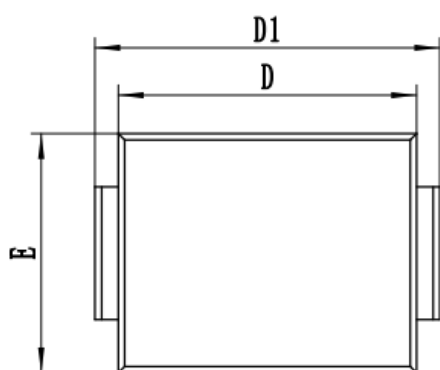
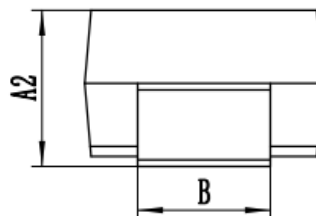
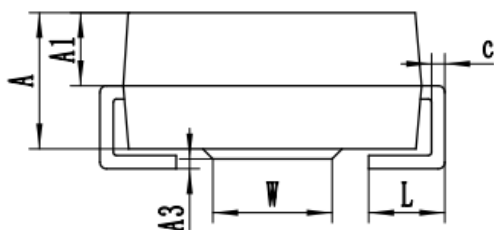


IF(AV) vs Tc



CJ vs VR





SYMBOL	MM	
	MIN	MAX
A	1.70	2.25
A1	0.90	1.30
A2	2.10	2.60
A3	0.00	0.30
B	1.80	2.20
c	0.10	0.30
D	4.30	4.70
D1	4.95	5.70
E	3.40	3.80
L	0.80	1.50
W	1.60	2.10

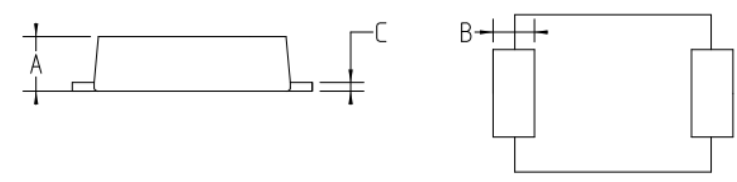




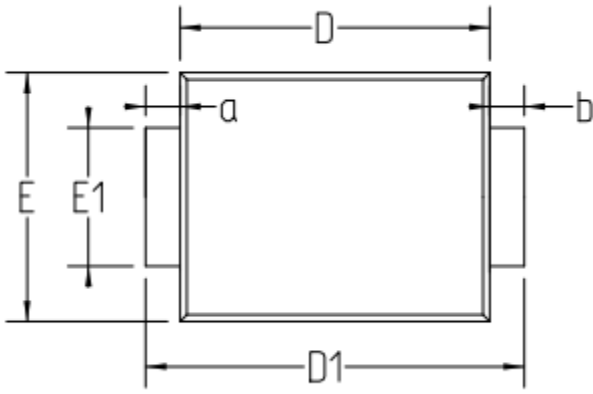
外形尺寸 PACKAGE MECHANICAL DATA

SMBF

单位 Unit : mm



符号 symbol	min	max
A	1.15	1.35
B	0.75	1.2
C	0.15	0.3
D	4.35	4.67
D1	5.3	5.7
E	3.53	3.83
E1	1.9	2.14





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联系方式

吉林华微电子股份有限公司

公司地址：吉林省吉林市深圳街 99 号

邮编：132013

总机：86-432-64678411

传真：86-432-64665812

网址：www.hwdz.com.cn

CONTACT

JILIN SINO-MICROELECTRONICS CO., LTD.

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.

Post Code: 132013

Tel: 86-432-64678411

Fax: 86-432-64665812

Web Site: www.hwdz.com.cn