



HBR2060

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	20 (2×10) A
V_{RRM}	60 V
T_j	175 °C
$V_{F(max)}$	0.65V (@ $T_j=125^{\circ}C$)

用途

- 高频开关电源
- 低压续流电路和保护电路

APPLICATIONS

- High frequency switch power supply
- Free wheeling diodes, polarity protection applications

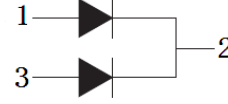
产品特性

- 共阴结构
- 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

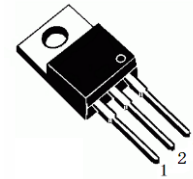
FEATURES

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

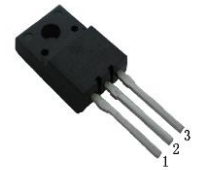
封装 Package



TO-220



TO-220HF



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		
HBR2060-CA-B	HBR2060-CA-BR	N/A	N/A	HBR2060	TO-220
HBR2060-FA-B	HBR2060-FA-BR	N/A	N/A	HBR2060	TO-220HF



**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}	60	V
最大直流阻断电压 Maximum DC blocking voltage		V_{DC}	60	V
正向平均整流电流 Average forward current	$T_C=150^{\circ}\text{C}$ (TO-220)	整个器件 per device 单 侧 per diode	20	A
	$T_C=125^{\circ}\text{C}$ (TO-220HF)		10	
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}	200	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
I_R	$T_j=25^{\circ}\text{C}$	$V_R=V_{RRM}$			30	μA
	$T_j=125^{\circ}\text{C}$				30	mA
V_F	$T_j=25^{\circ}\text{C}$	$I_F=10\text{A}$		0.67	0.76	V
	$T_j=125^{\circ}\text{C}$			0.63	0.68	V

热特性 THERMAL CHARACTERISTICS

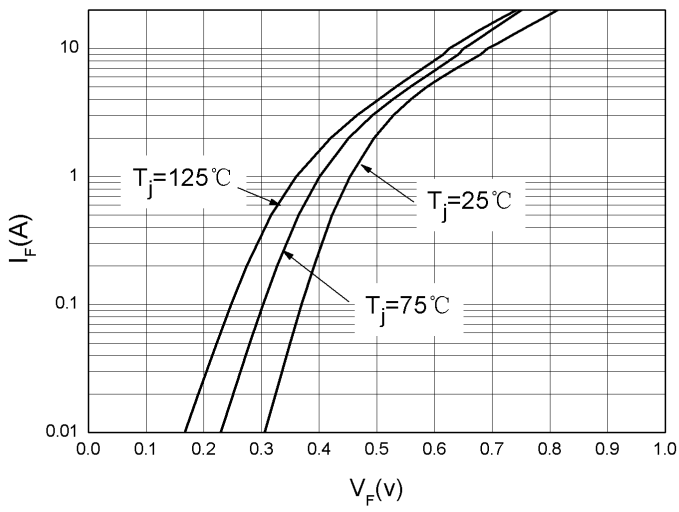
项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	$R_{th(j-c)}$		1.9 2.5	$^{\circ}\text{C/W}$



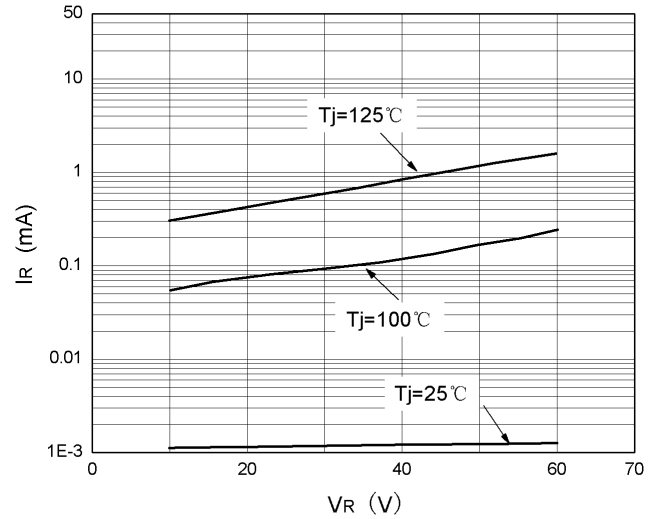


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

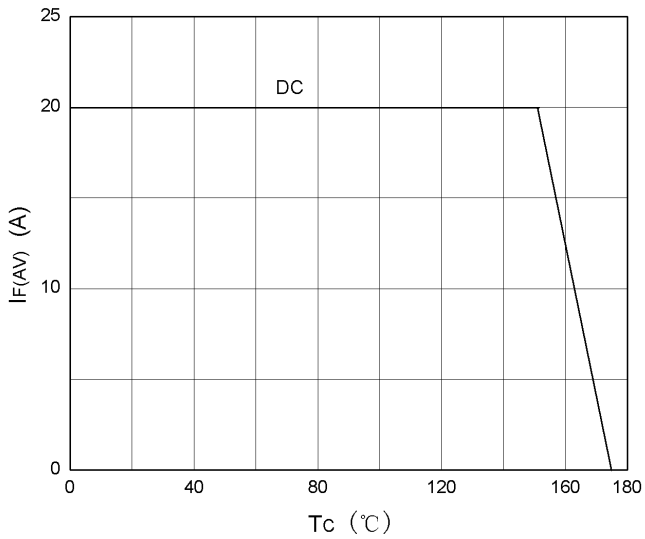
I_F vs V_F



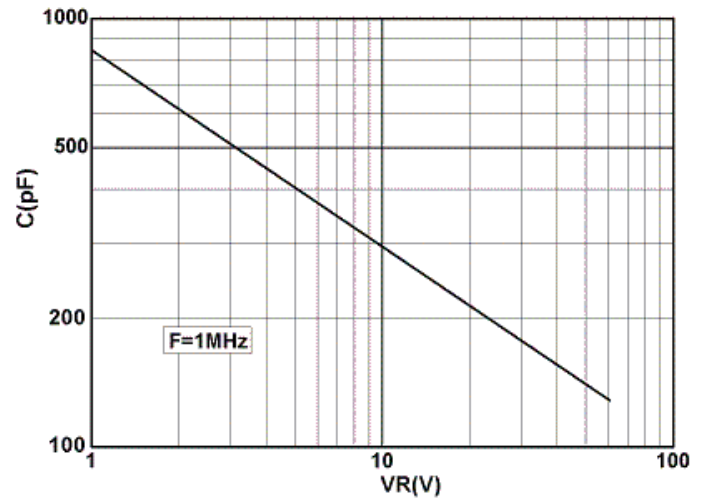
I_R vs V_R

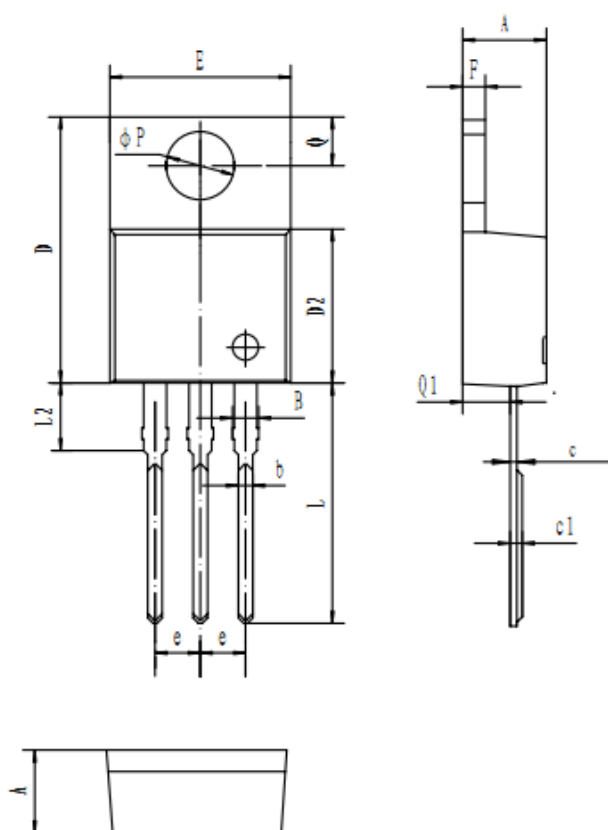


$I_{F(AV)}$ vs T_C

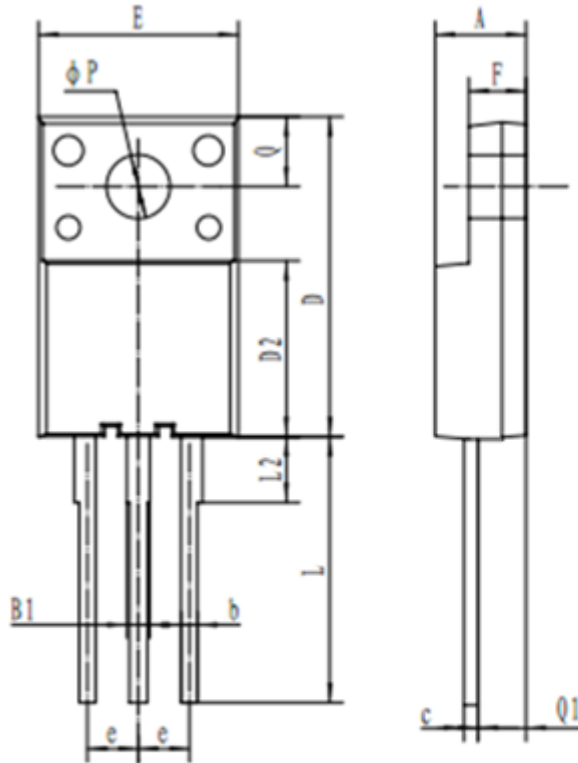


C_T vs V_R





符号 symbol	MIN	MAX
A	4.40	4.80
B	1.10	1.40
b	0.70	0.95
c	0.28	0.48
c1	0.32	0.52
D	14.45	16.00
D2	8.20	9.20
E	9.60	10.40
e	2.39	2.69
F	1.20	1.35
L	13.05	14.05
L2	3.70	3.90
Q	2.40	3.00
Q1	2.20	2.90
P	3.50	4.00



符号 symbol	MIN	MAX
A	4.0	5.0
B1	0.87	1.27
b	0.72	0.92
c	0.5	0.7
D	15.0	16.5
D2	7.8	9.4
E	9.62	10.62
e	2.54 TYP	
F	2.3	3.3
L	13.0	14.0
L2	3.1	3.5
ϕp	3.0	3.4
Q	3.15	3.55
Q1	2.2	2.5





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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
4. 本说明书如有版本变更不另外告知

NOTE

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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