



# HBR10100A

## 主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	10 (2×5) A
$V_{RRM}$	100 V
$T_j$	175 °C
$V_{F(max)}$	0.62V (@ $T_j=125^{\circ}C$ )

### 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

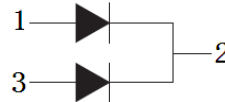
### 产品特性

- 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

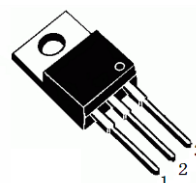
### FEATURES

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

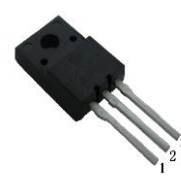
### 封装 Package



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		
HBR10100A-CA-B	HBR10100A-CA-BR	N/A	N/A	HBR10100A	TO-220
HBR10100A-FA-B	HBR10100A-FA-BR	N/A	N/A	HBR10100A	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 <sub>RRM</sub>	100	V
最大直流阻断电压 Maximum DC blocking voltage	V <sub>DC</sub>	100	V
正向平均整流电流 Average forward current	I <sub>F(AV)</sub>	10	A
T <sub>C</sub> =150℃ (TO-220) 整个器件 per device		5	
T <sub>C</sub> =125℃ (TO-220HF) 单 侧 per diode			
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 <sub>FSM</sub>	150	A
最高结温 Maximum junction temperature	T <sub>j</sub>	175	℃
储存温度 Storage temperature range	T <sub>STG</sub>	-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 <sub>R</sub>	T <sub>j</sub> =25℃	V <sub>R</sub> =V <sub>RRM</sub>			10	μA
	T <sub>j</sub> =125℃				5	mA
V <sub>F</sub>	T <sub>j</sub> =25℃	I <sub>F</sub> =5A		0.71	0.75	V
	T <sub>j</sub> =125℃			0.58	0.62	V
	T <sub>j</sub> =25℃	I <sub>F</sub> =10A		0.78	0.85	V
	T <sub>j</sub> =125℃			0.65	0.7	V

## 热特性 THERMAL CHARACTERISTICS

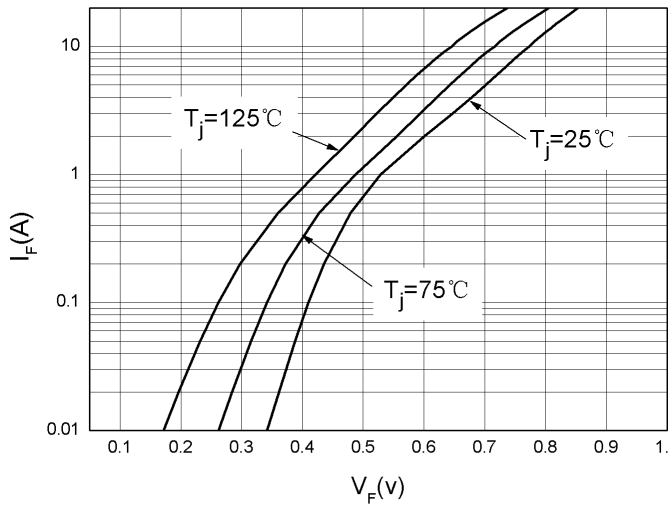
项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	R <sub>th(j-c)</sub>		1.9	℃/W
TO-220			3.5	
TO-220HF				



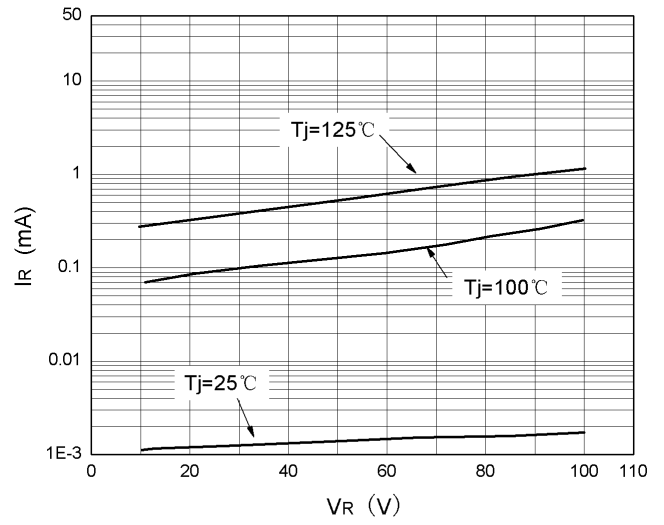


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

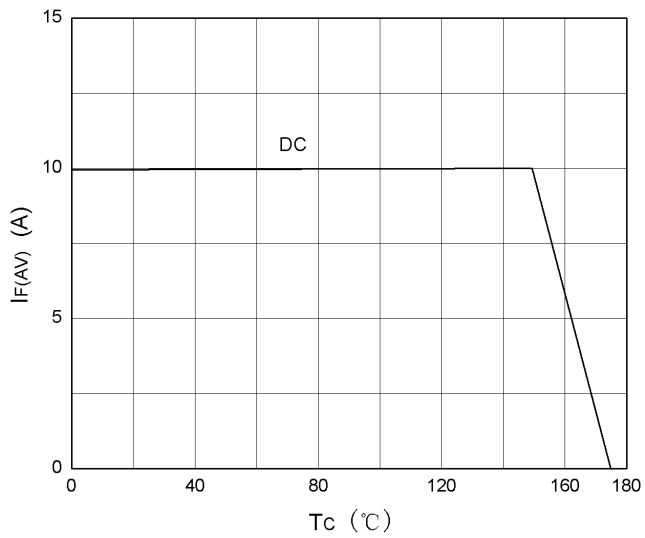
$I_F$  vs  $V_F$



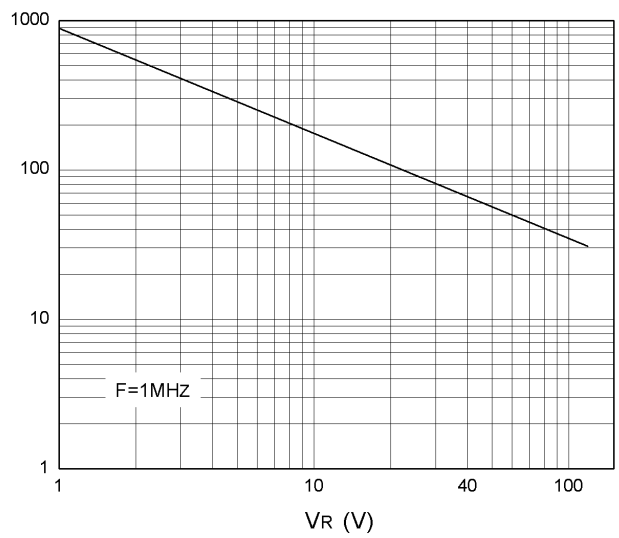
$I_R$  vs  $V_R$

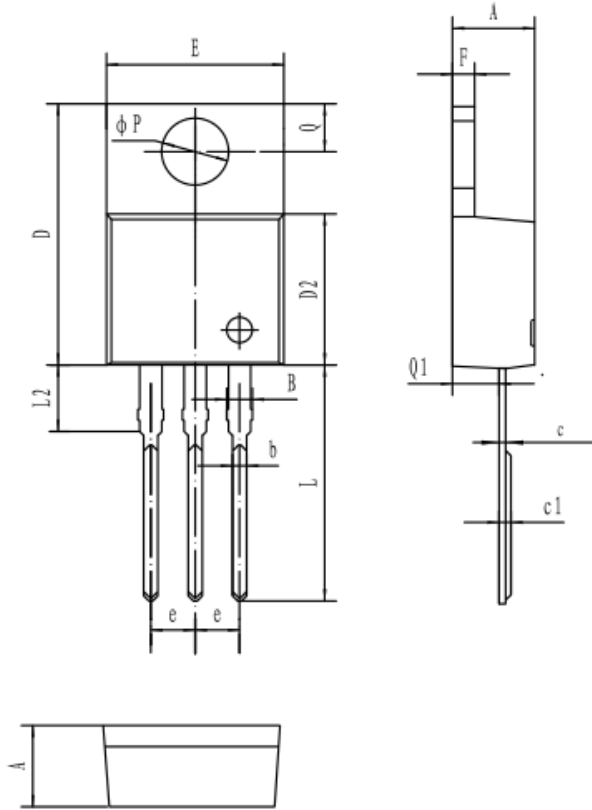


$I_{F(AV)}$  vs  $T_c$



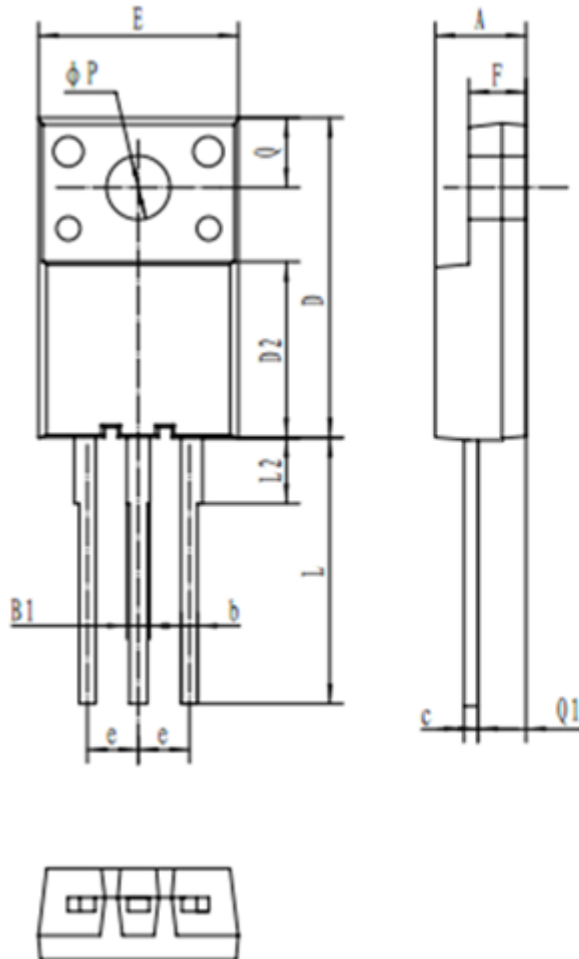
$C_T$  vs  $V_R$





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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