



# HBR8S100

## 主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	8 A
$V_{RRM}$	100 V
$T_j$	175 °C
$V_{F(max)}$	0.59V (@ $T_j=125^{\circ}C$ )

### 用途

- 低压、高频整流
- 低压续流电路和保护电路

### 产品特性

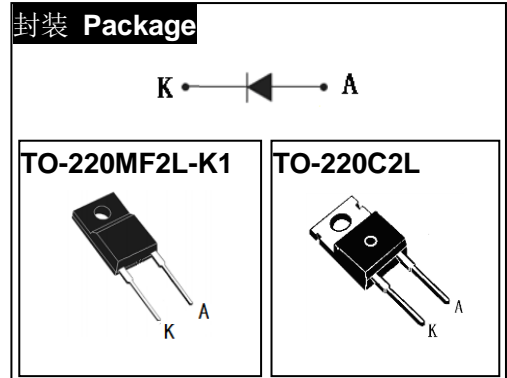
- 低功耗，高效率
- 良好的高温特性
- 有过压保护环，高可靠性
- 环保 (RoHS) 产品

### 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



## 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		
HBR8S100-FK-B	HBR8S100-FK-BR	N/A	N/A	HBR8S100	TO-220MF2L-K1
HBR8S100-CL-B	HBR8S100-CL-BR	N/A	N/A	HBR8S100	TO-220C2L



## 绝对最大额定值 ABSOLUTE RATINGS (Tc=25°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	$V_{RRM}$	100	V
最大直流阻断电压 Maximum DC blocking voltage	$V_{DC}$	100	V
正向均方根电流 Forward rms current	$I_{F(RMS)}$	30	A
正向平均整流电流 Average forward current (T <sub>C</sub> =125°C)	$I_{F(AV)}$	8	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)	$I_{FSM}$	250	A
最高结温 Maximum junction temperature	$T_j$	175	°C
储存温度 Storage temperature range	$T_{STG}$	-55~+150	°C

## 电特性 ELECTRICAL CHARACTERISTICS (Tc=25°C unless otherwise specified)

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
$I_R$	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$			20	$\mu\text{A}$
	$T_j = 125^\circ\text{C}$			2	6	mA
$V_F$	$T_j = 25^\circ\text{C}$	$I_F = 8\text{A}$		0.68	0.72	V
	$T_j = 125^\circ\text{C}$			0.55	0.59	
	$T_j = 25^\circ\text{C}$	$I_F = 10\text{A}$		0.71	0.77	
	$T_j = 125^\circ\text{C}$			0.58	0.64	
	$T_j = 25^\circ\text{C}$	$I_F = 16\text{A}$		0.77	0.81	
	$T_j = 125^\circ\text{C}$			0.64	0.68	

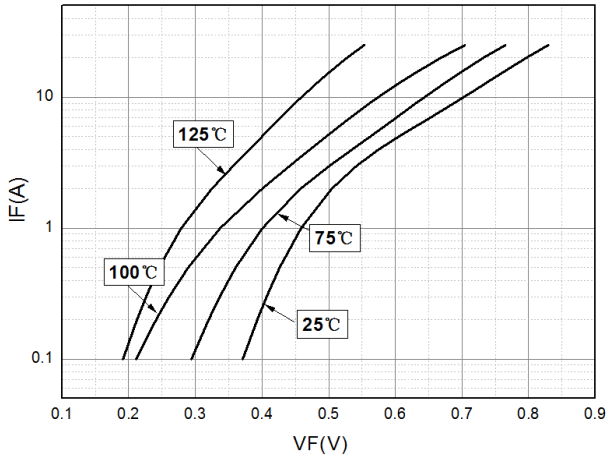
## 热特性 THERMAL CHARACTERISTICS

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	$R_{th(j-c)}$		3.8 1.5	°C/W
				TO-220MF2L-K1 TO-220C2L

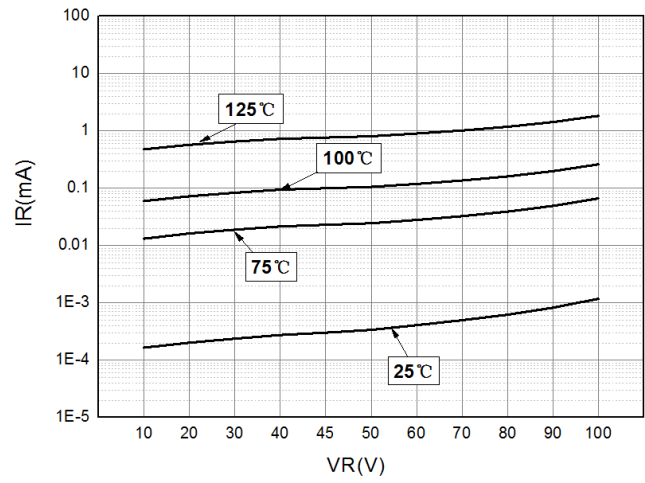


## 特征曲线 ELECTRICAL CHARACTERISTICS (curves)

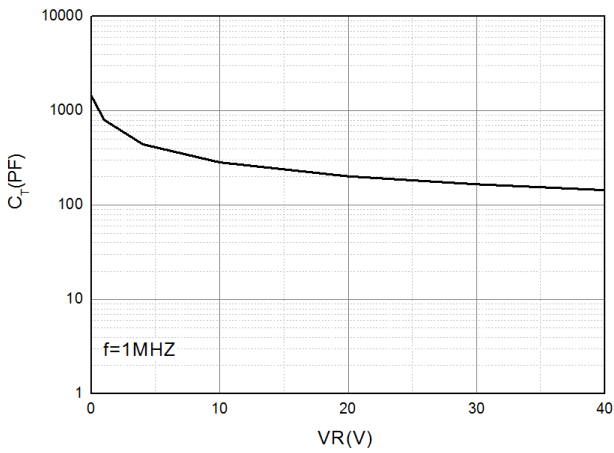
IF vs VF



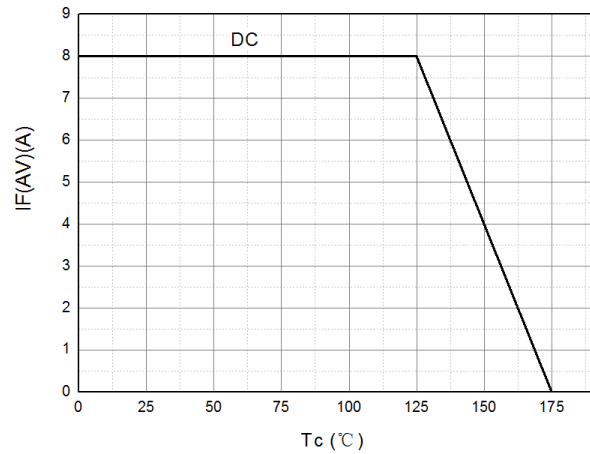
IR vs VR



IF(AV) vs Tc



CT vs VR



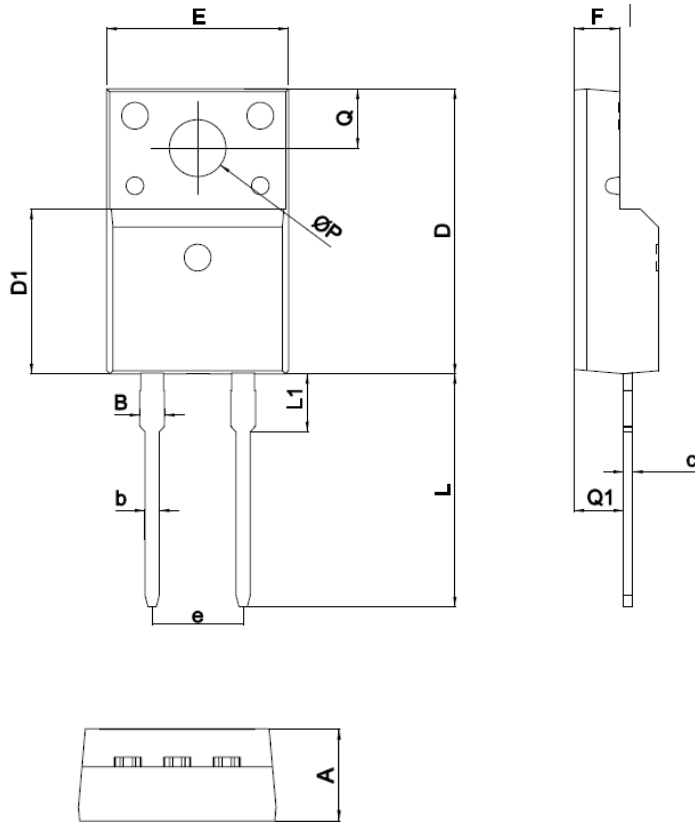


# HBR8S100

## 外形尺寸 PACKAGE MECHANICAL DATA

### TO-220MF2L-K1

单位Unit : mm



SYMBOL	mm	
	MIN	MAX
A	4.5	4.9
B	1.22	1.47
b	0.7	0.9
c	0.45	0.60
D	15.6	16.1
D1	9.0	9.3
e	5.08TYPE	
E	9.9	10.4
F	2.3	2.8
L	12.6	13.3
L1	3.1	3.4
Q	3.2	3.4
Q1	2.6	2.9
$\Phi P$	3.0	3.5

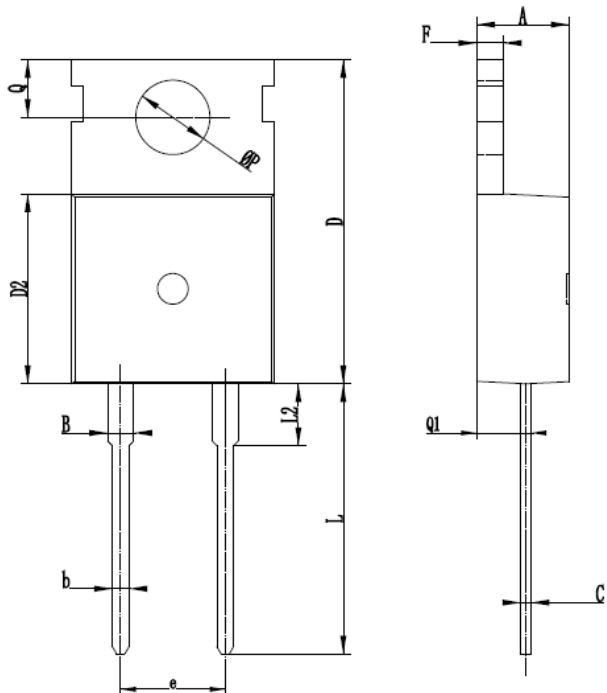


# HBR8S100

外形尺寸 PACKAGE MECHANICAL DATA

TO-220C2L

单位 Unit : mm



符号 symbol	单位: mm	
	MIN	MAX
A	4.30	4.70
B	1.22	1.40
b	0.70	0.95
c	0.40	0.65
D	15.20	16.20
D2	9.00	9.40
E	9.70	10.10
e	4.78	5.38
F	1.25	1.40
L	12.60	13.60
L2	2.80	3.20
Q	2.60	3.00
Q1	2.20	2.60
P	3.50	3.80



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