

HBR20200

主要参数 MAIN CHARACTERISTICS

$I_F(AV)$	20 (2×10) A
V_{RRM}	200 V
T_j	175 °C
$V_F(max)$	0.75V (@ $T_j=125^{\circ}C$)

用途

- 高频开关电源
- 低压续流电路和保护电

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

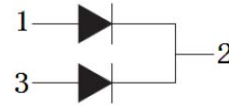
APPLICATIONS

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

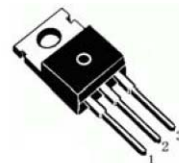
FEATURES

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

封装 Package



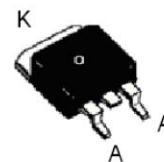
T0-220C



T0-220HF



T0-263



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}	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 Average forward current	T _c =150℃ (TO-220C, TO-263) T _c =125℃ (TO-220F, TO-220HF)	整个器件 per device 单侧 per diode	I _{F(AV)}	20 10	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}	190	A
最高结温 Maximum junction temperature			T _j	175	℃
储存温度 Storage temperature range			T _{STG}	-40~+150	℃

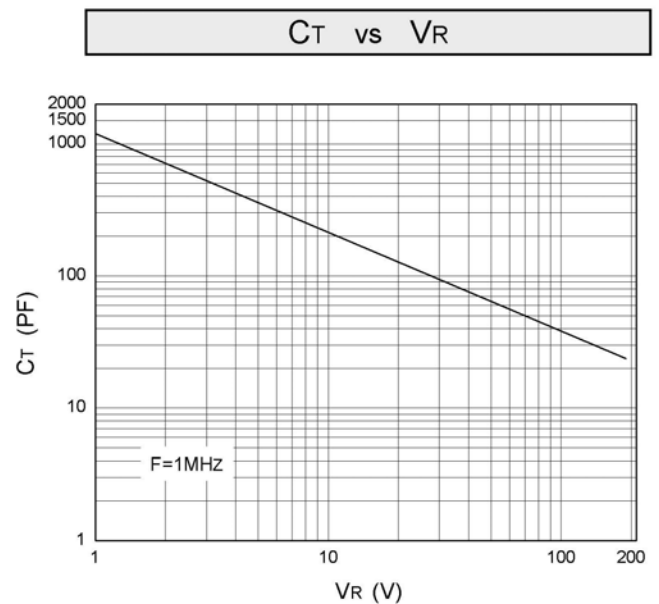
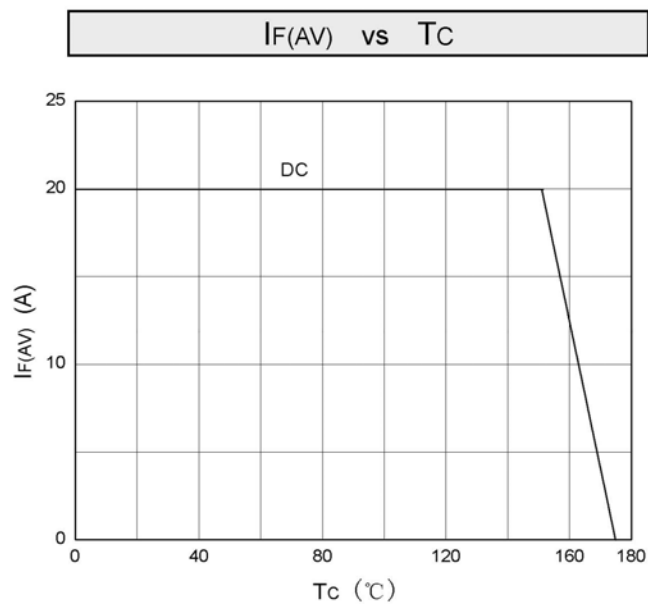
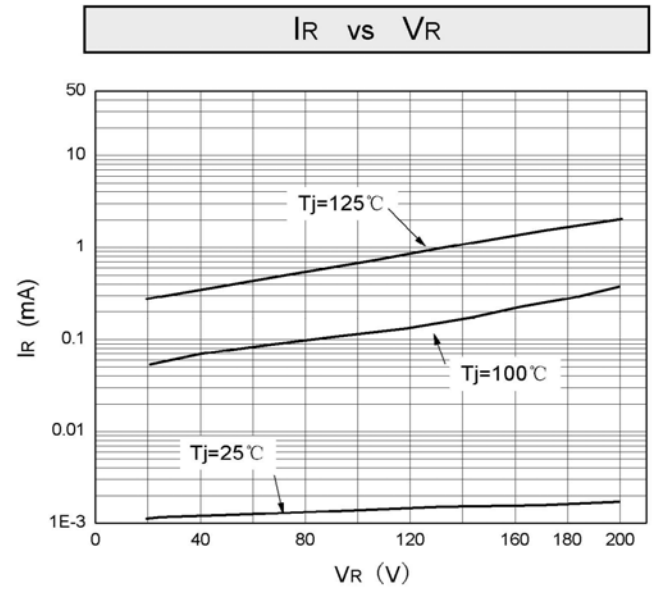
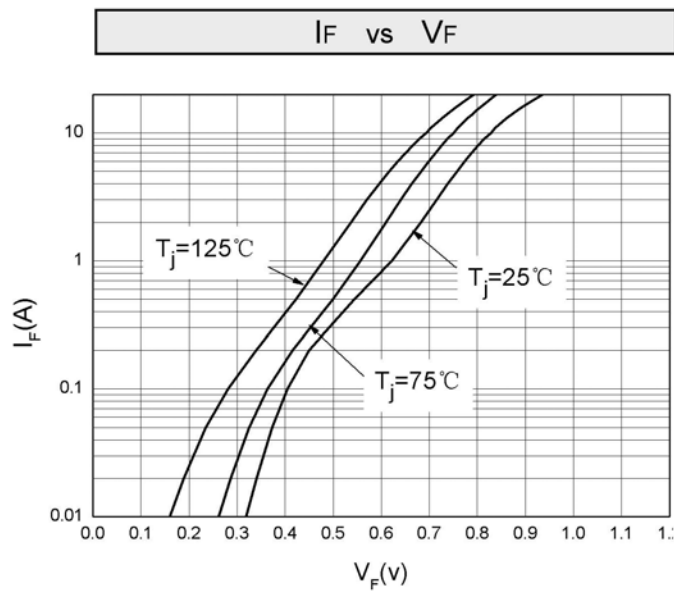
电特性 ELECTRICAL CHARACTERISTICS

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 _j =25℃	V _R =V _{RRM}			10	μA
	T _j =125℃				6	mA
V _F	T _j =25℃	I _F =10A		0.83	0.93	V
	T _j =125℃			0.68	0.75	V

热特性 THERMAL CHARACTERISTICS

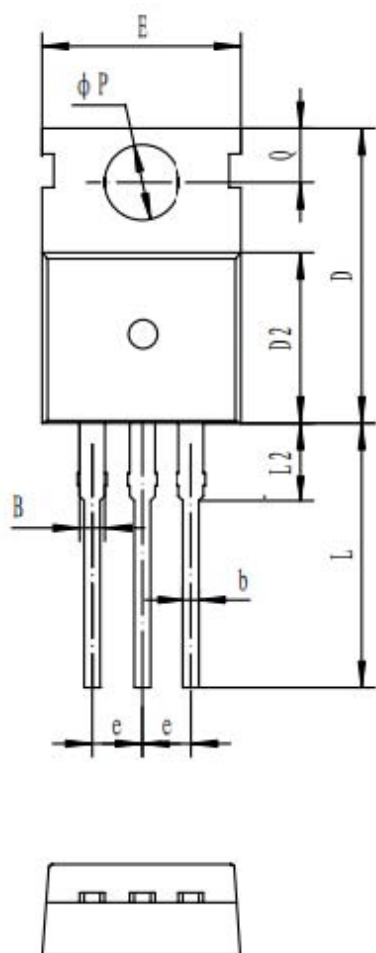
项目 Parameter		符号 Symbol	最小值 Value(min)	最大值 Value(max)	单位 Unit
结到管壳的热阻 Thermal resistance from junction to case	TO-220C TO-263 TO-220HF	R _{th(j-c)}		3.0 3.0 3.5	℃/W

特征曲线：ELECTRICAL CHARACTERISTICS (curves)



外形尺寸：PACKAGE MECHANICAL DATA
TO-220C

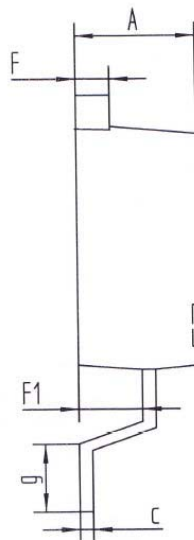
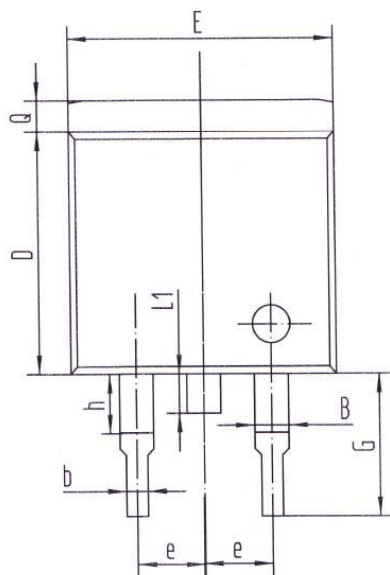
单位 Unit:mm



符号 symbol	MIN	MAX
A	4.30	4.70
B	1.10	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	2.39	2.69
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

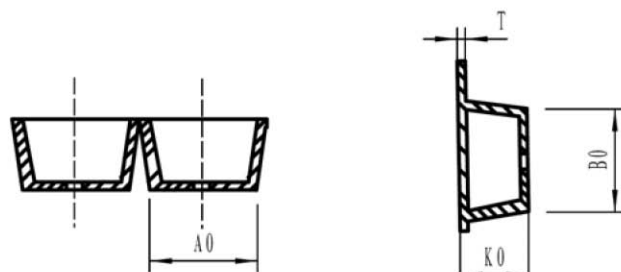
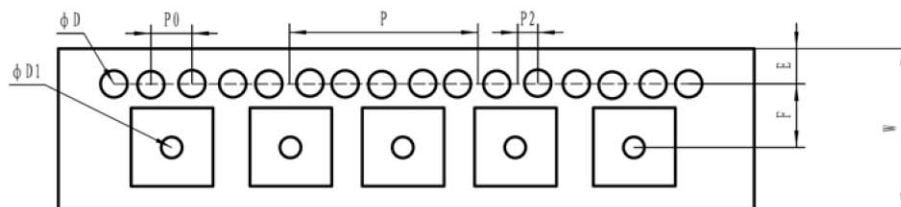
外形尺寸：PACKAGE MECHANICAL DATA
TO-263

单位 Unit:mm



符号 symbol	MIN	MAX
A	4.50	4.90
B	1.20	1.40
D	8.40	8.80
E	9.50	10.50
F	1.20	1.40
F1	2.50	2.90
G	4.50	5.50
L1	1.30	1.60
Q	1.20	1.50
b	0.75	0.95
c	0.35	0.50
e	2.49	2.59
g	1.90	2.80
h	2.30	3.30

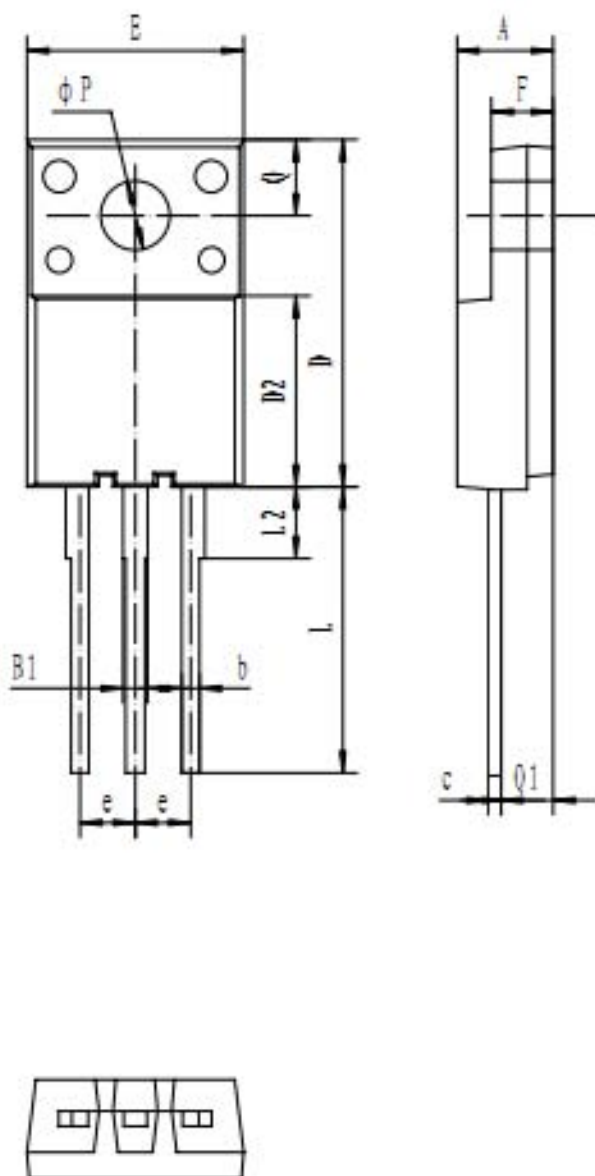
编带 REEL



产品尺寸规格 (UNIT:mm)					
规格	W	A0	E	F	D
尺寸	24 ± 0.3	10.9 ± 0.2	1.75 ± 0.2	11.5 ± 0.2	1.5 +0.2/-0.1
规格	D1	P0	P2	P	T
尺寸	1.5 +0.2/-0.1	4 ± 0.2	2 ± 0.2	16 ± 0.2	0.35 ± 0.05
规格	K0	B0			
尺寸	4.9 ± 0.2	16.0 ± 0.2			

外形尺寸: PACKAGE MECHANICAL DATA
TO-220HF

单位 Unit:mm



符 号 Symbol	Min	Max
A	4.0	5.0
B1	0.87	1.27
b	0.72	0.92
c	0.5	0.70
D	15.0	16.5
D2	7.6	9.4
E	9.62	10.62
e	2.54(typ)	
F	2.3	3.3
L	12.0	14.0
L2	3.1	3.5
ϕP	3.0	3.4
Q	3.15	3.55
Q1	2.2	2.5