



HBR20200S

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	20 (2×10) A
V_{RRM}	200 V
T_j	175 °C
$V_{F(max)}$	0.80V (@ $T_j=125^{\circ}C$)

用途

- 高频开关电源
- 低压续流电路和保护电路

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

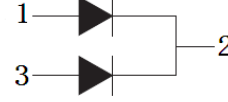
APPLICATIONS

- 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

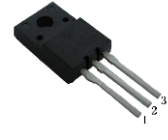
封装 Package



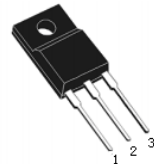
TO-220C



TO-220HF



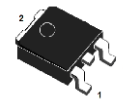
TO-220MF-K1



DPAKM



TO-263



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		
HBR20200S-C-B	HBR20200S-C-BR	N/A	N/A	HBR20200S	TO-220C
HBR20200S-FA-B	HBR20200S-FA-BR	N/A	N/A	HBR20200S	TO-220HF
HBR20200S-F1-B	HBR20200S-F1-BR	N/A	N/A	HBR20200S	TO-220MF-K1
HBR20200S-S-B	HBR20200S-S-BR	HBR20200S-S-A	HBR20200S-S-AR	HBR20200S	TO-263
N/A	N/A	HBR20200S-RM-A	HBR20200S-RM-AR	HBR20200S	DPAKM



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/263 /DPAKM)	整个器件 per device	20	A
	T _C =125℃ (TO-220HF/220MF- K1)	单 侧 per diode	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)	TO-220C/263 /TO-220HF/220MF-K1	I _{FSM}	190	A
	DPAKM	I _{FSM}	180	A
最高结温 Maximum junction temperature		T _j	175	℃
储存温度 Storage temperature range		T _{STG}	-40~+15 0	℃

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		0.86	0.95	V
	T _j =125℃			0.72	0.80	V

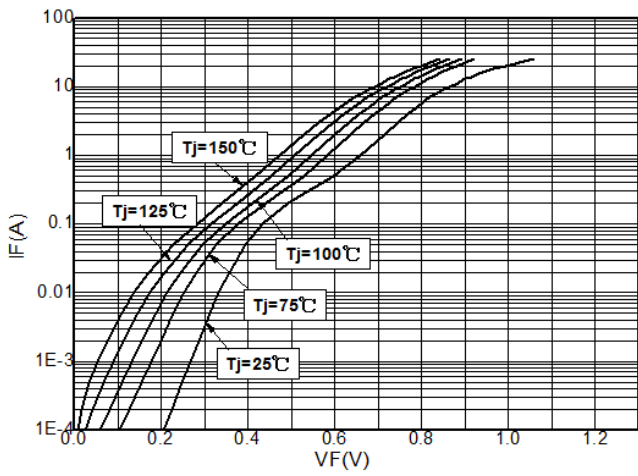
热特性 THERMAL CHARACTERISTICS

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	R _{th(j-c)}		2.0	℃/W
	TO-263			2.0	
	DPAKM			3.0	
	TO-220HF			3.5	
	TO-220MF-K1			3.5	

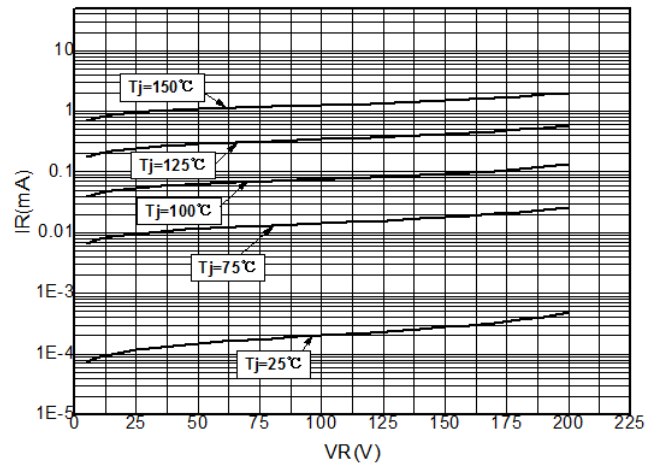


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

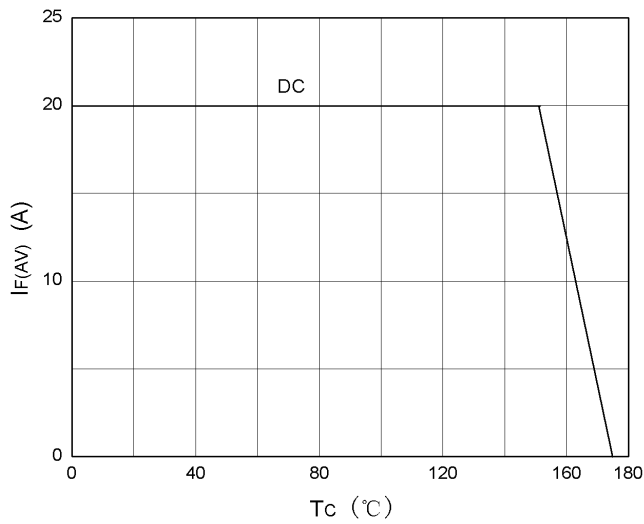
IF vs VF



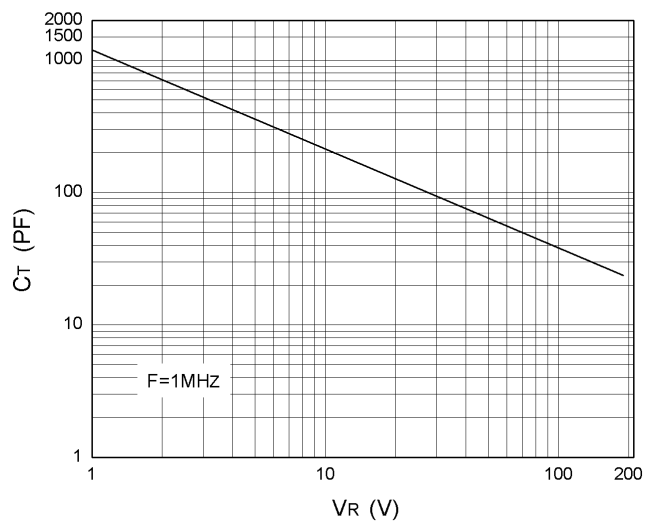
IR vs VR

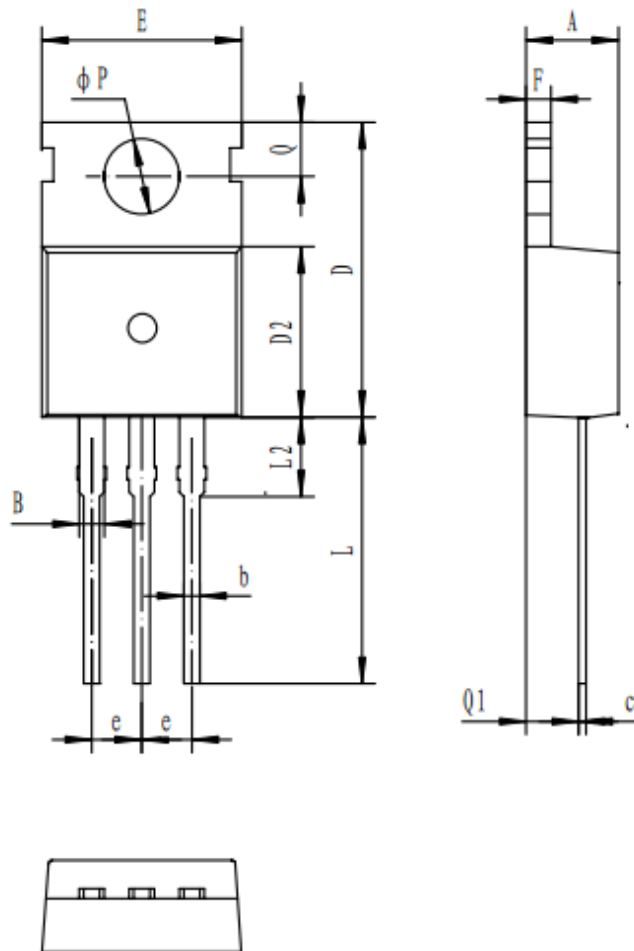


IF(AV) vs Tc

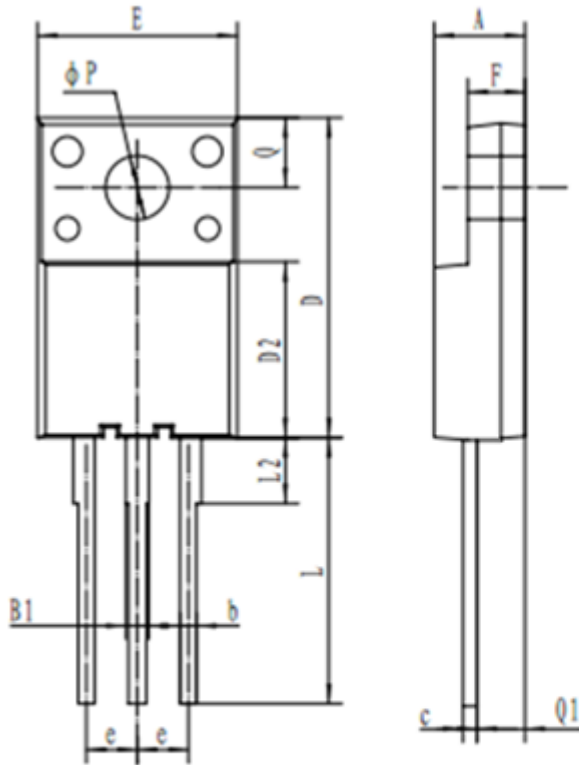


CT vs VR





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



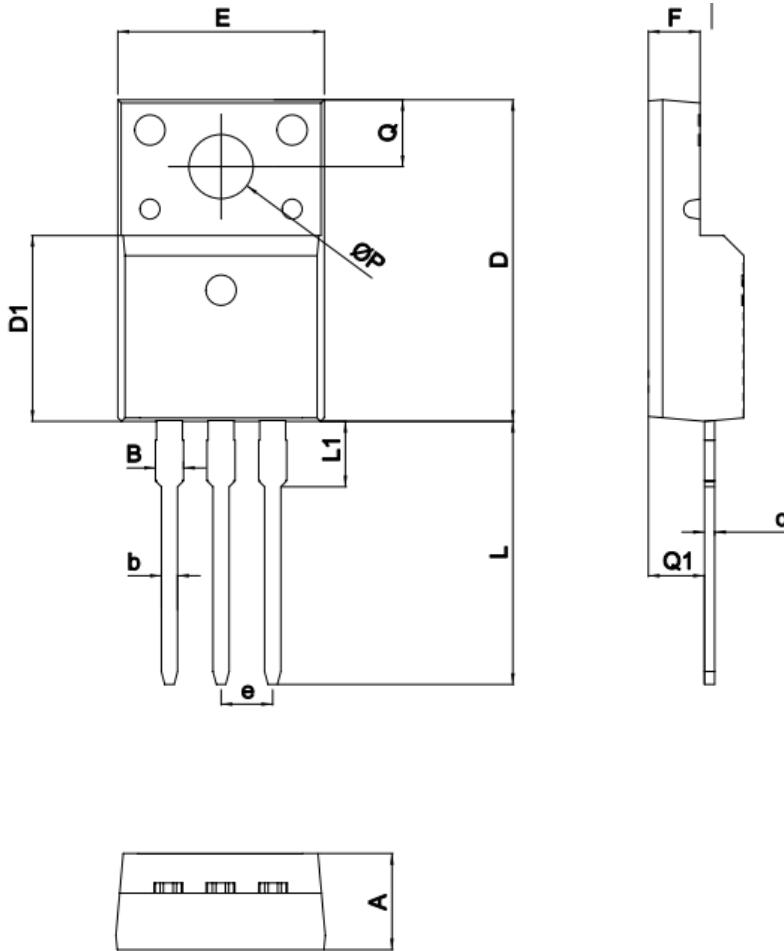
符号 symbol	MIN	MAX
A	4.0	5.0
B1	0.87	1.27
b	0.72	0.92
c	0.5	0.7
D	15.0	16.5
D2	7.8	9.4
E	9.62	10.62
e	2.54 TYP	
F	2.3	3.3
L	13.0	14.0
L2	3.1	3.5
ϕp	3.0	3.4
Q	3.15	3.55
Q1	2.2	2.5





外形尺寸 PACKAGE MECHANICAL DATA
TO-220MF-K1

单位 Unit : mm

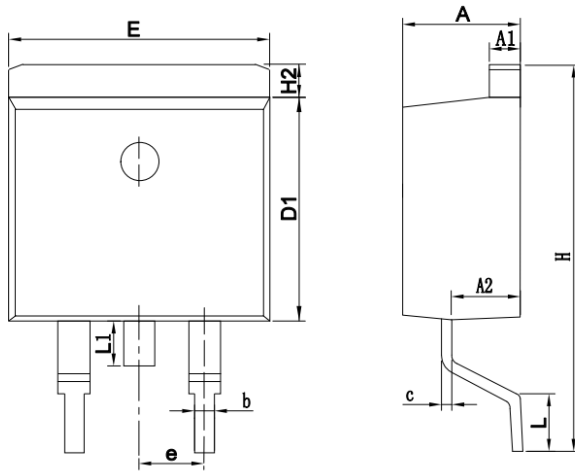


SYMBOL	mm	
	MIN	MAX
A	4.5	4.9
B	1.22	1.47
b	0.7	0.9
c	0.45	0.60
D	15.6	16.1
D1	9.0	9.3
e	2.54TYPE	
E	9.9	10.4
F	2.3	2.8
L	12.6	13.3
L1	3.1	3.4
Q	3.2	3.4
Q1	2.6	2.9
ΦP	3.0	3.5



外形尺寸 PACKAGE MECHANICAL DATA
TO-263

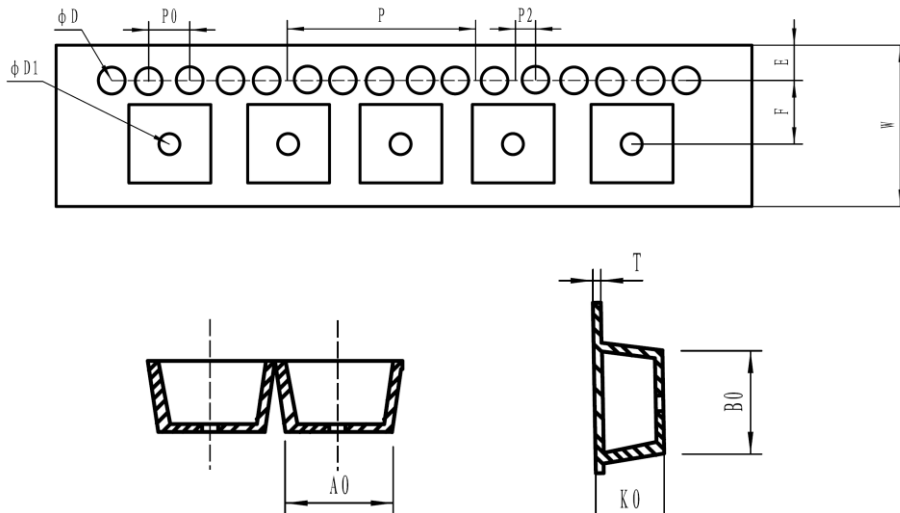
单位 Unit : mm



SYMBOL	MM	
	MIN	MAX
A	4.30	4.80
A1	1.12	1.42
A2	2.54	2.84
b	0.67	1.00
c	0.29	0.52
D1	8.40	9.00
E	9.80	10.46
e	2.54BSC	
H	14.00	16.00
H2	1.12	1.45
L	1.50	3.10
L1	1.45	1.70

单位: mm

编带 REEL

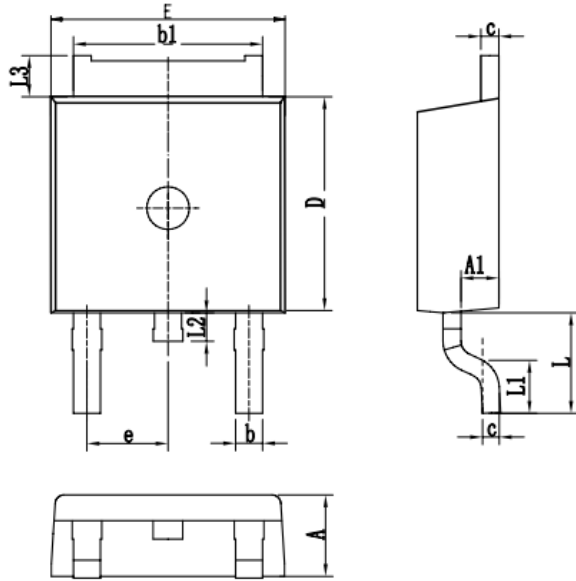


产品尺寸规格 (UNIT:mm)				
规格	W	A0	E	D
尺寸	24 ± 0.3	10.9 ± 0.2	1.75 ± 0.2	1.5 + 0.2/-0.1
规格	D1	P0	P2	P
尺寸	1.5 + 0.2/-0.1	4 ± 0.2	2 ± 0.2	16 ± 0.2
规格	K0	B0		
尺寸	4.9 ± 0.2	16.0 ± 0.2		



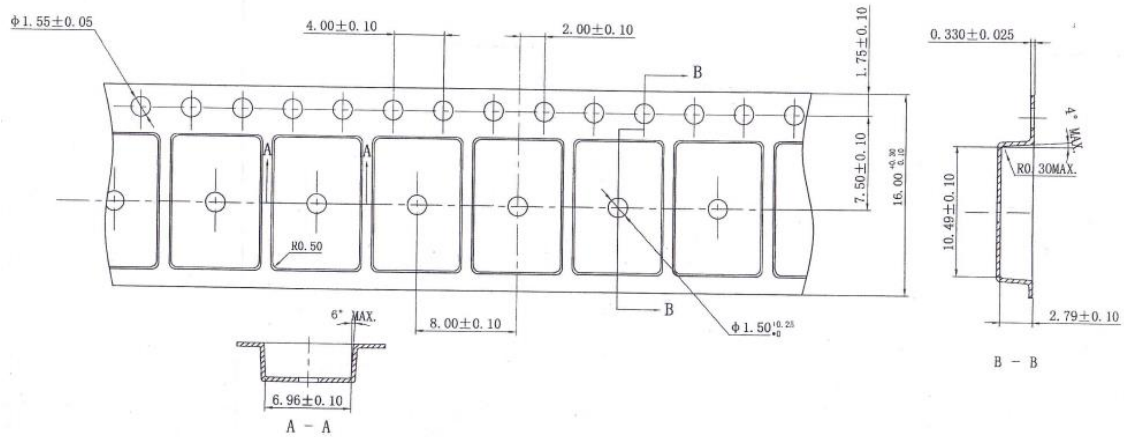
外形尺寸 PACKAGE MECHANICAL DATA
DPAKM

单位 Unit : mm



SYMBOL	mm	
	MIN	MAX
A	2.10	2.50
A1	0.80	1.20
b	0.66	0.96
b1	5.10	5.50
c	0.40	0.62
D	5.85	6.45
E	6.30	6.90
e	2.286BSC	
L	2.40	3.00
L1	0.85	1.45
L2	0.60	1.10
L3	0.67	1.07

编带REEL





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4. 本说明书如有版本变更不另外告知。

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3. Please do not exceed the absolute maximum ratings of the device when circuit designing.
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