

FEATURES

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

APPLICATIONS

- High frequency switch Power supply
- Free wheeling diodes, Polarity protection applications

主要参数 MAIN CHARACTERISTICS

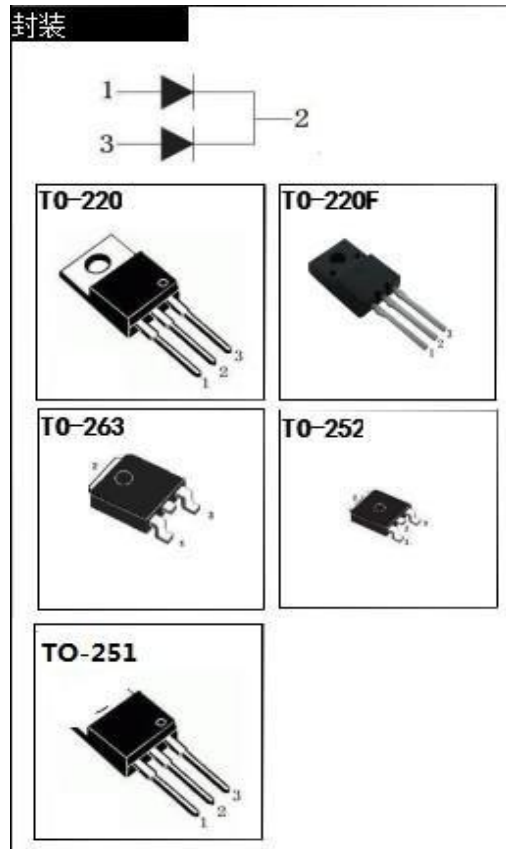
$I_{F(AV)}$	20 (2×10) A
$V_{F(max)}$	0.7V (@T _j =125℃)
T _j	175 ℃
V _R RM	100 V

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

用途

- 高频开关电源
- 低压续流电路和保护电路

**产品型号信息 PRODUCT MESSAGE**

型号 Model	印记 Marking	封装 Package
MBR20100	MBR20100	TO-220C
MBRF20100	MBRF20100	TO-220F
MBR20100S	MBR20100S	TO-263
MBR20100R	MBR20100R	TO-252
MBR20100V	MBR20100V	TO-251
MBR20100C	MBR20100C	TO-220

MBR20100 肖特基二极管 SCHOTTKY DIODE

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
正向平均整流电流 Average forward current	$I_{F(AV)}$	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}	200	A
最高结温 Maximum junction temperature	T_j	175	°C
储存温度 Storage temperature range	T_{STG}	-40~+150	°C

电特性 ELECTRICAL CHARACTERISTICS

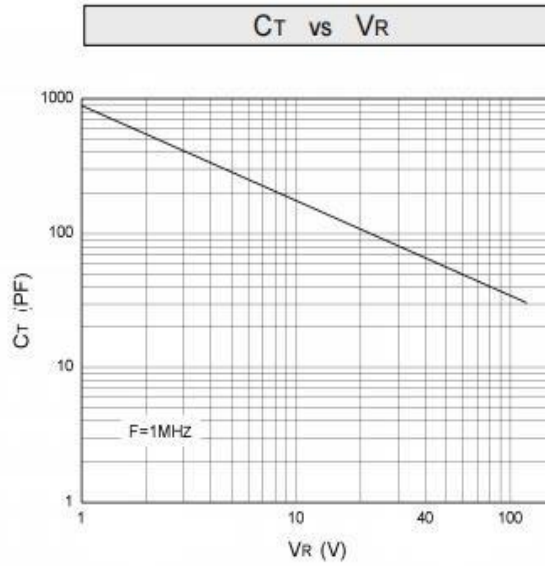
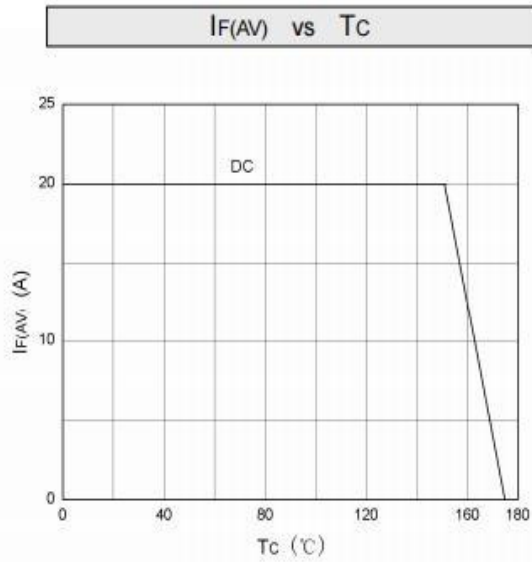
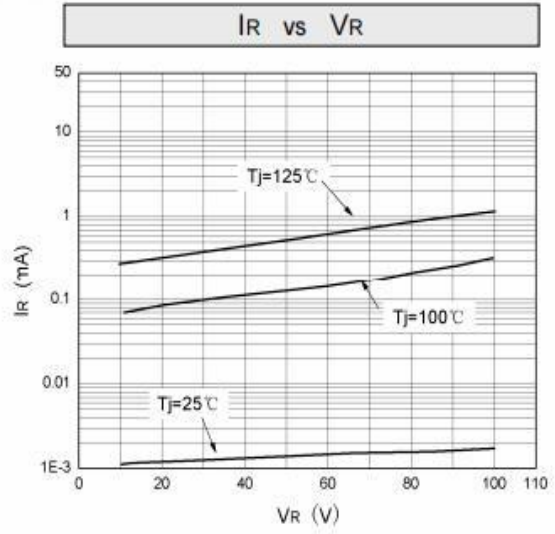
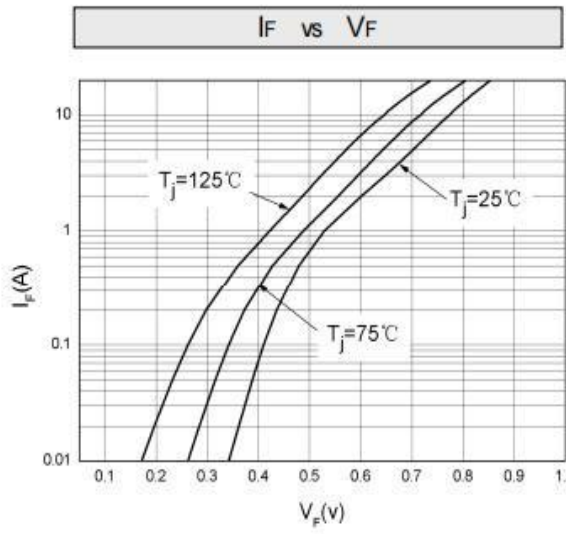
项 目 Parameter	测试条件 Tests conditions	最小值 Value(min)	典型值 Value(typ)	最大值 Value(max)	单 位 Unit
I_R	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$		10	μA
	$T_j = 125^\circ\text{C}$			5	mA
V_F	$T_j = 25^\circ\text{C}$	$I_F = 10\text{A}$		0.78	V
	$T_j = 125^\circ\text{C}$			0.65	V

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 1.9 2.3 2.3	°C/W

MBR20100 肖特基二极管 SCHOTTKY DIODE

特征曲线 ELECTRICAL CHARACTERISTICS (curves)

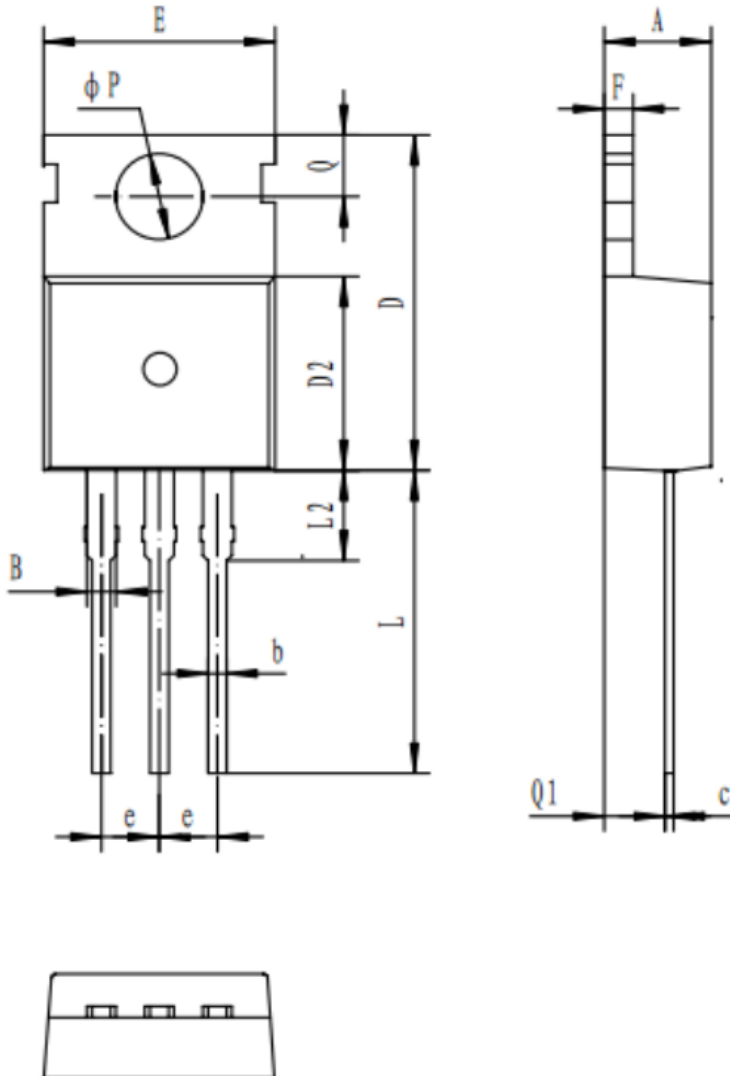


MBR20100 肖特基二极管 SCHOTTKY DIODE

外形尺寸 PACKAGE MECHANICAL DATA

单位 Unit : mm

TO-220C

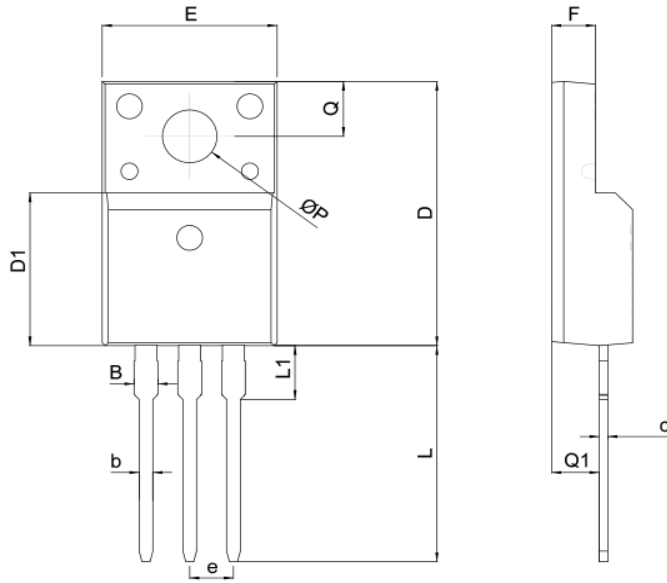


符号 symbol	MIN	MAX
A	4.30	4.70
B	1.10	1.45
b	0.70	0.95
c	0.40	0.65
D	15.20	16.20
D2	8.80	9.40
E	9.70	10.30
e	2.39	2.69
F	1.25	1.40
L	12.60	13.60
L2	2.80	3.20
Q	2.60	3.00
Q1	2.20	2.60
P	3.50	3.80

MBR20100 肖特基二极管 SCHOTTKY DIODE

外形尺寸 PACKAGE MECHANICAL DATA TO-220F

单位 Unit : mm



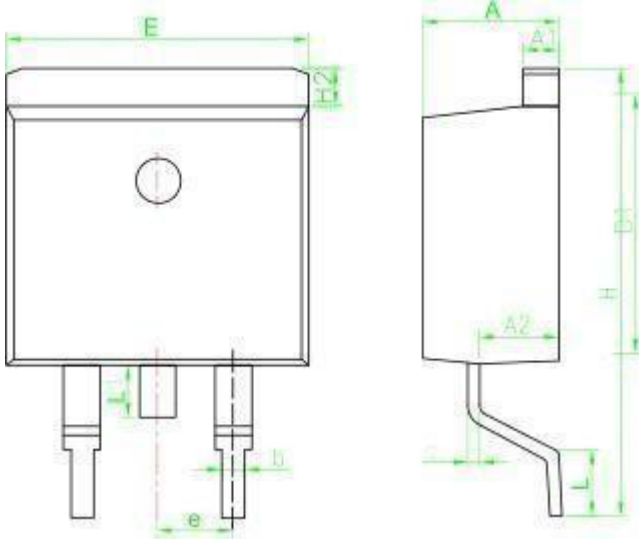
SYMBOL	mm	
	MIN	MAX
A	4.5	4.9
B	1.22	1.47
b	0.7	0.9
c	0.45	0.60
D	15.6	16.1
D1	9.0	9.3
e	2.54TYPE	
E	9.9	10.4
F	2.3	2.8
L	12.6	13.3
L1	3.1	3.4
Q	3.2	3.4
Q1	2.6	2.9
ΦP	3.0	3.5



MBR20100 肖特基二极管 SCHOTTKY DIODE

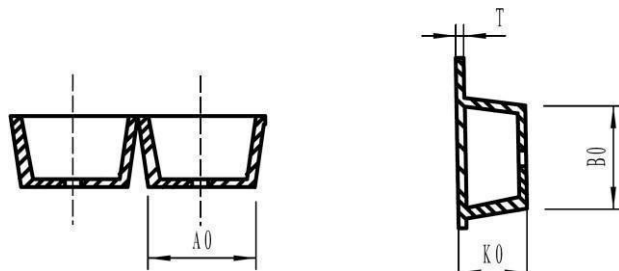
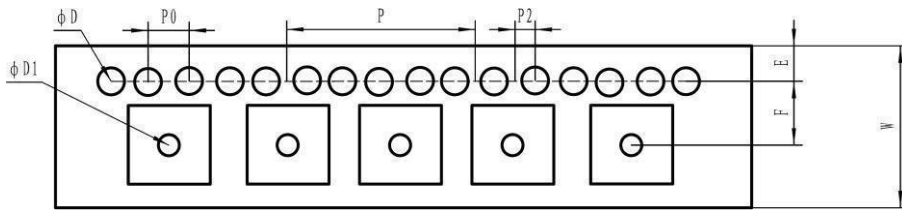
外形尺寸 PACKAGE MECHANICAL DATA TO-263

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

编带 REEL

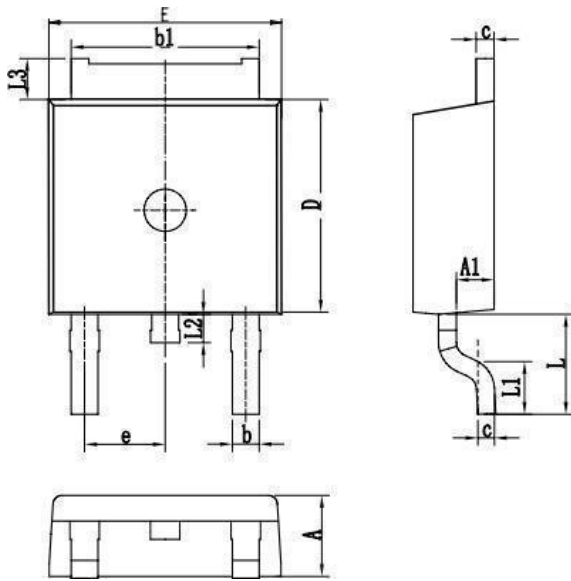


产品尺寸规格 (UNIT: mm)					
规格	W	A0	E	F	D
尺寸	24 ± 0.3	10.9 ± 0.2	1.75 ± 0.2	11.5 ± 0.2	1.5 +0.2/-0.1
规格	D1	P0	P2	P	T
尺寸	1.5 +0.2/-0.1	4 ± 0.2	2 ± 0.2	16 ± 0.2	0.35 ± 0.05
规格	K0	B0			
尺寸	4.9 ± 0.2	16.0 ± 0.2			

MBR20100 肖特基二极管 SCHOTTKY DIODE

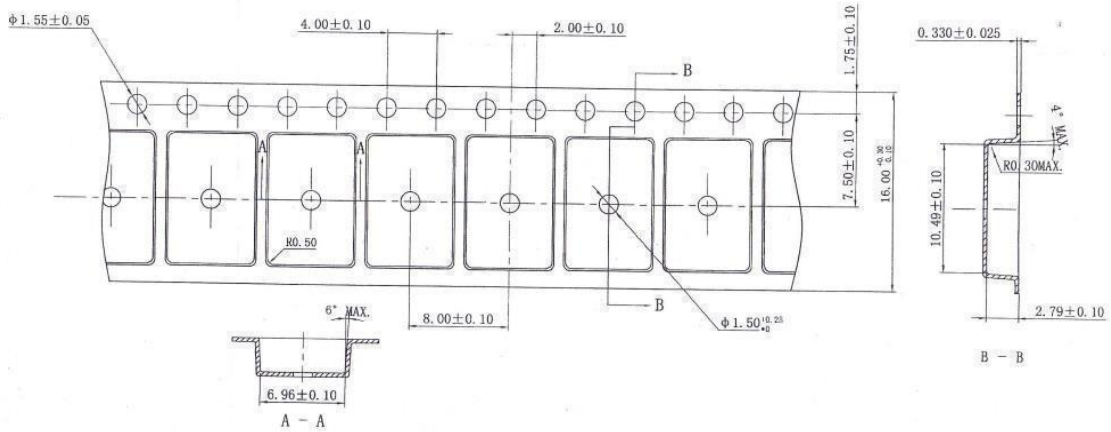
外形尺寸 PACKAGE MECHANICAL DATA TO-252

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



MBR20100 肖特基二极管 SCHOTTKY DIODE

外形尺寸 PACKAGE MECHANICAL DATA
TO-251

单位 Unit : mm

