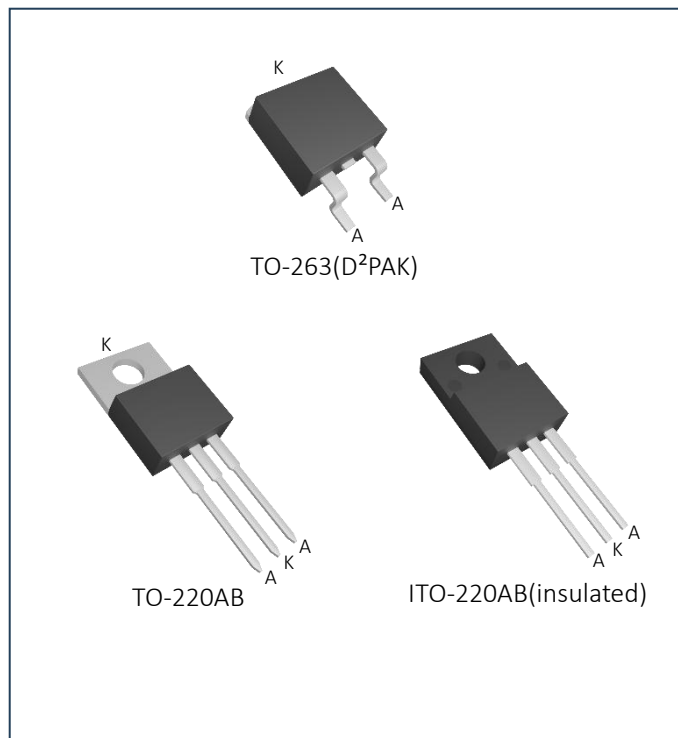


MBR30L150CT series

低正向压降肖特基二极管

LOW V_F SCHOTTKY BARRIER DIODE

封装外形 Package



主要参数 Device summary

Symbol	Value
$I_F(AV)$	30A
V_{RRM}	150V
$V_F(typ)$	0.65V/15A@125°C
$I_R(typ)$	2mA@125°C
$T_J(max)$	175°C

机械数据 Mechanical Data

- 模塑料符合 UL 94 V-0 易燃等级, 符合 RoHS 标准
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- 端子: 镀锡引线, 可焊接 J-STD-002 和 JESD22-B102
Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- 极性: 本体标记
Polarity: As marked on body

产品特点 Features

- ◆ 低正向压降 Low forward voltage
- ◆ 高结温 High Junction temperature
- ◆ 低漏电 Low leakage current
- ◆ 高可靠性 High reliability
- ◆ 环保产品 RoHS product
- ◆ 绝缘电压 Package Insulated voltage:
ITO-220AB: $\geq 3000V V_{DC}$ $t=100ms$

最大额定值 Maximum ratings

项目 Parameter	符合 Symbol	数值 Value	单位 Unit
反向重复峰值电压 Peak repetitive reverse voltage	VRRM	150	V
平均正向电流 Average forward current	IF(AV)	30	A
per device		15	
浪涌电流 Non-repetitive single pulse surge current t=8.3ms	IFSM	250	A
结温 Junction temperature	Tj	-55~+175	°C
存储温度 Storage temperature	TSTG	-55~+175	°C

电特性 Electrical characteristics(Tc=25°C)

项目 Parameter	测试条件 Tests conditions		数值 Value			单位 Unit
			最小值(min)	典型值(typ)	最大值(max)	
VRRM	IR=0.05mA		150	-	-	V
IR 反向漏电流	Tj=25°C	VR=VRRM	-	-	0.1	mA
	Tj=125°C		-	-	20	
VF 正向电压	Tj=25°C	IF=15A	-	-	0.85	V
	Tj=125°C	IF=1A	-	0.53	-	
		IF=7.2A	-	0.57	-	
		IF=15A	-	0.65	-	

热特性 Thermal characteristics(Tc=25°C)

Parameter	Symbol	Value	Unit
热阻 Thermal resistance from junction to case	TO-220AB	2.0	°C/W
	ITO-220AB	4.0	
	TO-263(D ² PAK)	2.0	

典型特征曲线图 Typical Characteristic Curve

图 1: 正向电流与外壳温度

FIG 1: I_F - T_c

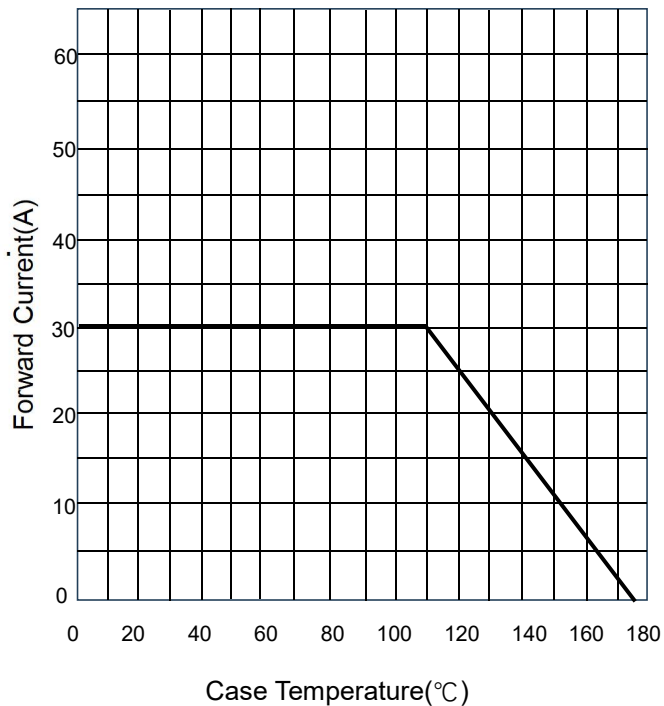


图 2: 正向浪涌循环次数

FIG 2: Surge Forward Current Capability

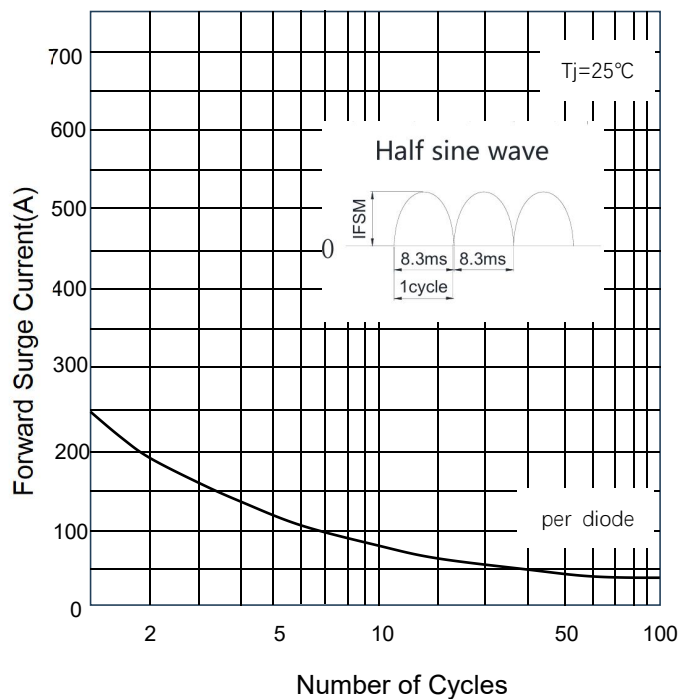


图 3: 反向电压与反向电流

FIG 3: V_R - I_R

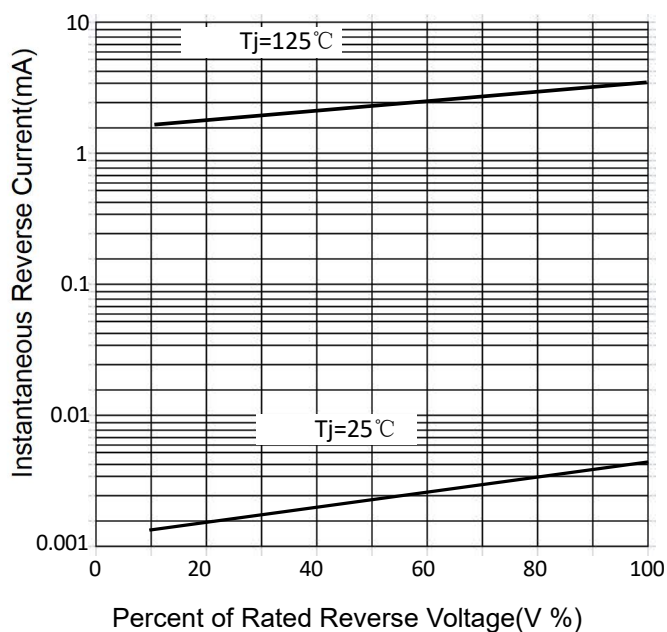
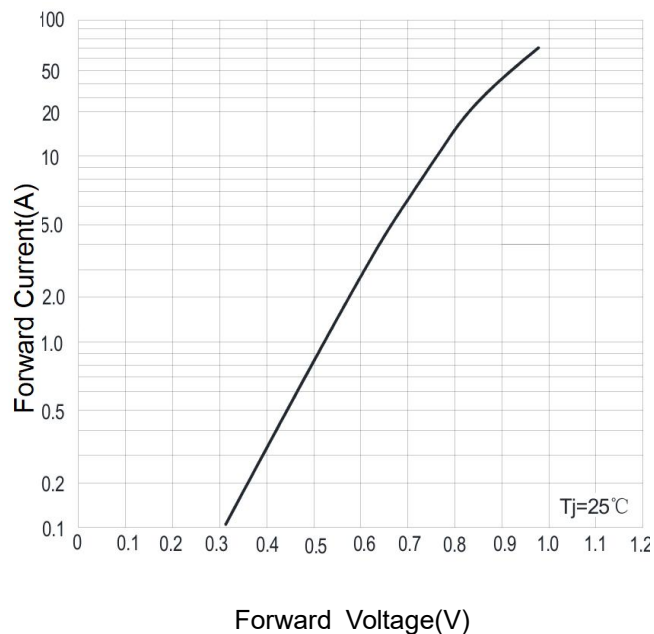
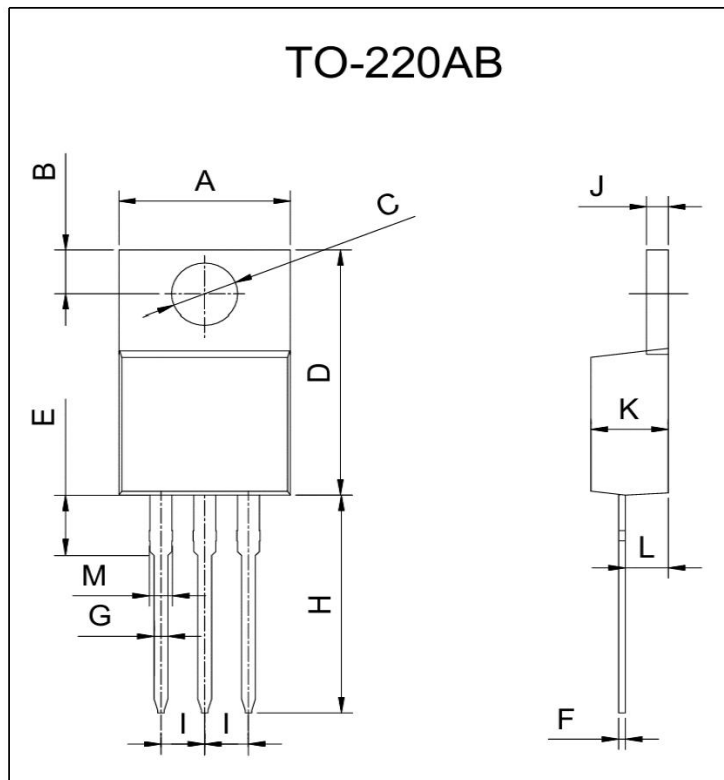


图 4: 正向电流与正向电压

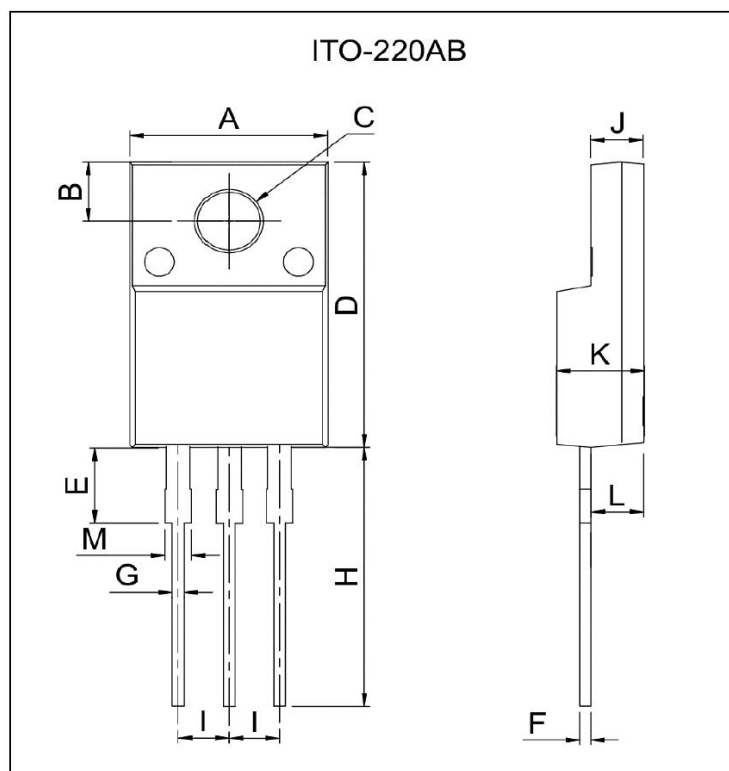
FIG 4: I_F - V_F



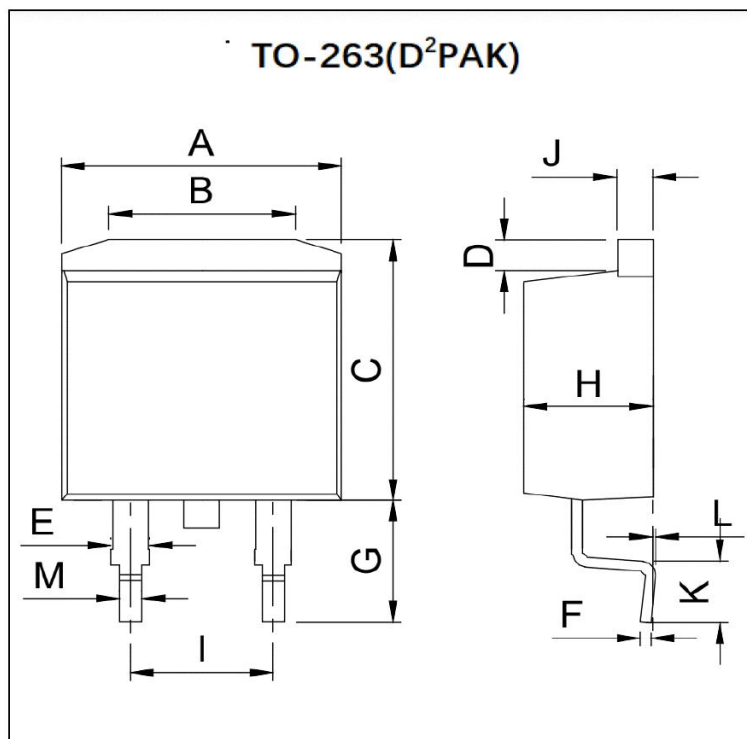
外形尺寸图及焊盘布局参考 Outline Dimensions and Pad Layout Reference



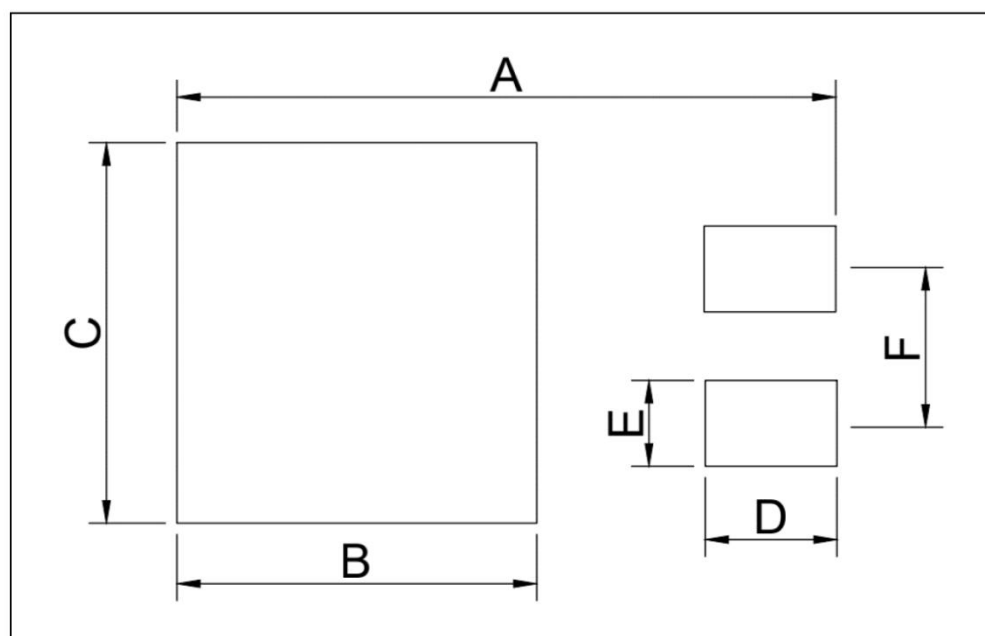
TO-220AB _(mm)			
Dim	Min	Typ	Max
A	9.90	10.10	10.30
B	2.60	2.74	2.90
C	3.69	3.84	3.99
D	14.95	15.25	15.55
E	3.40	3.65	3.90
F	0.28	0.38	0.48
G	0.60	0.80	1.00
H	13.30	13.60	13.90
I	2.44	2.54	2.64
J	1.17	1.27	1.37
K	4.30	4.50	4.70
L	2.30	2.50	2.70
M	1.10	1.30	1.50



ITO-220AB _(mm)			
Dim	Min	Typ	Max
A	9.70	10.00	10.30
B	3.00	3.20	3.40
C	3.10	3.25	3.40
D	15.10	15.40	15.70
E	3.40	3.60	3.80
F	0.45	0.55	0.65
G	0.50	0.60	0.70
H	12.80	13.20	13.60
I	2.45	2.55	2.65
J	2.50	2.70	2.90
K	4.20	4.40	4.60
L	2.60	2.70	2.80
M	1.15	1.25	1.35



TO-263(D ² PAK)(mm)			
Dim	Min	Typ	Max
A	9.80	10.00	10.20
B	6.40	6.70	7.00
C	10.00	10.20	10.40
D	1.00	1.20	1.40
E	1.10	1.30	1.50
F	0.28	0.38	0.48
G	4.50	4.80	5.10
H	4.40	4.60	4.80
I	4.88	5.08	5.28
J	1.17	1.27	1.37
K	2.30	2.50	2.80
L	0.00	0.15	0.30
M	0.70	0.80	0.90



Dim	Millimeters
A	16
B	9.6
C	11
D	3.5
E	1.8
F	5

产品信息 Device information

订单型号 Order code	印记 Marking	封装 Package	重量 Weight	包装形式 Packing	基本包装 Base qty	盒 Box	箱 Carton
WMBR30L150CTP	MBR30L150CT	TO-220AB	1.9g	管装 Tube	50	1,000	5,000
WMBR30L150FCTP	MBR30L150CT	ITO-220AB	1.5g				
WMBR30L150DCTP	MBR30L150CT	TO-263(D ² PAK)	1.7g				
WMBR30L150DCTR	MBR30L150CT	TO-263(D ² PAK)	1.7g	盘装 Reel	800	800	8,000

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