



FEATURES

- Axial Lead & SMD Rectifier
- Low power loss, high efficiency
- High Operating Junction Temperature
- Guard ring for overvoltage protection, High reliability
- RoHS product

APPLICATIONS

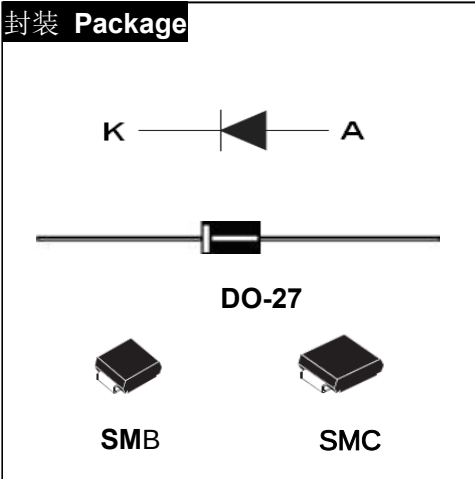
- Low voltage, high frequency rectifier
- Free wheeling diodes, polarity protection applications

产品特性

- 轴向、贴片结构
- 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

- 低压、高频整流
- 低压续流电路和保护电路



主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	5A
V_{RRM}	300 V
T_j	150℃
$V_{F(max)}$	0.78V (@ $T_j=125^{\circ}C$)

产品型号信息PRODUCTMESSAGE

型号Model	印记Marking	封装Package
MBR5300L	MBR5300L	DO-27
SS530L	SS530L	SMB/SMC



绝对最大额定值 ABSOLUTE RATINGS ($T_c=25^{\circ}\text{C}$)

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}	300	V
最大直流阻断电压 Maximum DC blocking voltage	V_{DC}	300	V
正向平均整流电流 $T_c=125^{\circ}\text{C}$ Average Rectified Forward Current	$I_{F(AV)}$	5	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}	120	A
最高结温 Maximum junction temperature	T_j	150	$^{\circ}\text{C}$
储存温度 Storage temperature range	T_{STG}	-40~+150	$^{\circ}\text{C}$

电特性 ELECTRICAL CHARACTERISTICS

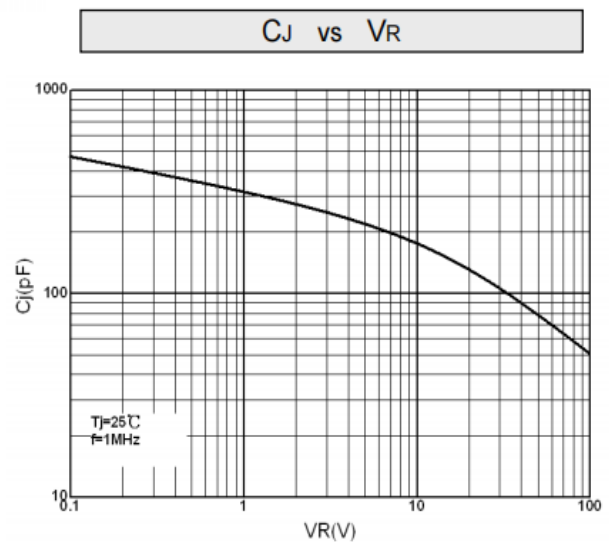
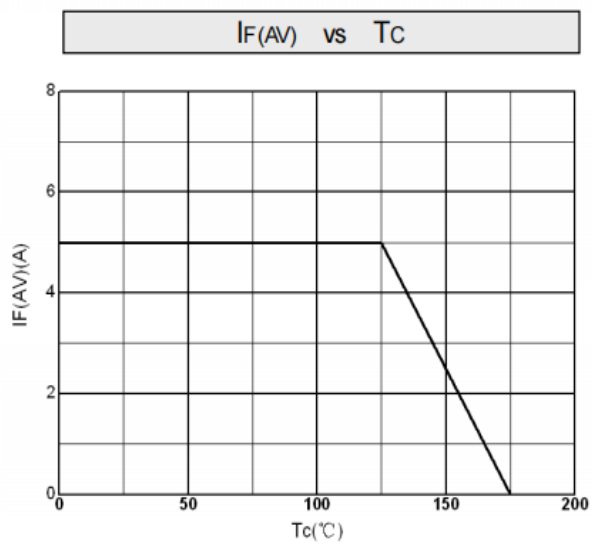
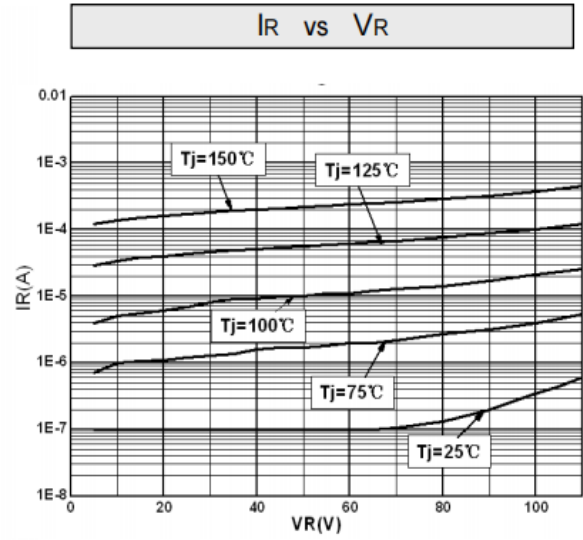
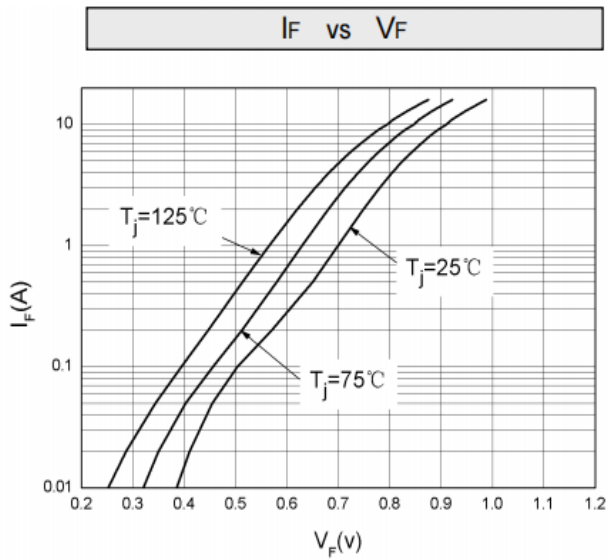
项 目 Parameter	测试条件 Tests conditions		最小值 Value(min)	典型值 Value(typ)	最大值 Value(max)	单位 Unit
I_R	$T_j = 25^{\circ}\text{C}$	$V_R = V_{RRM}$			10	μA
	$T_j = 125^{\circ}\text{C}$				5	mA
V_F	$T_j = 25^{\circ}\text{C}$	$I_F = 5\text{A}$		0.94	0.96	V
	$T_j = 125^{\circ}\text{C}$			0.75	0.78	V

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	DO-27	$R_{th(j-c)}$		25	$^{\circ}\text{C/W}$
	SMB			40	
	SMC			37	
结到环境的热阻 Thermal resistance from junction to ambient	DO-27	$R_{th(j-a)}$		70	$^{\circ}\text{C/W}$
	SMB			140	
	SMC			120	



特征曲线 ELECTRICAL CHARACTERISTICS (curves)

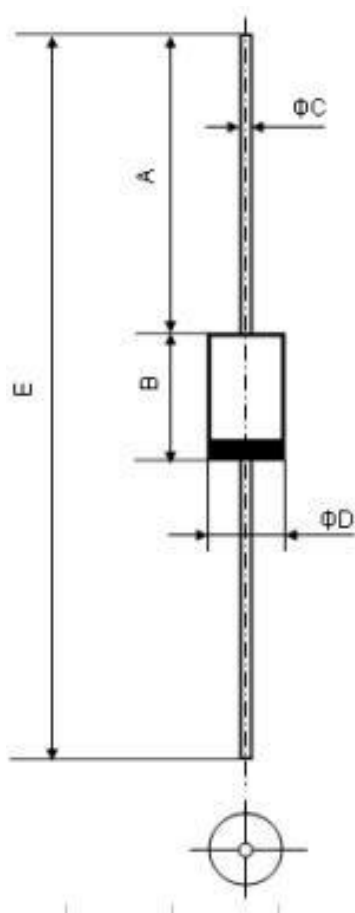




外形尺寸 PACKAGE MECHANICAL DATA

DO-27

单位 Unit : mm



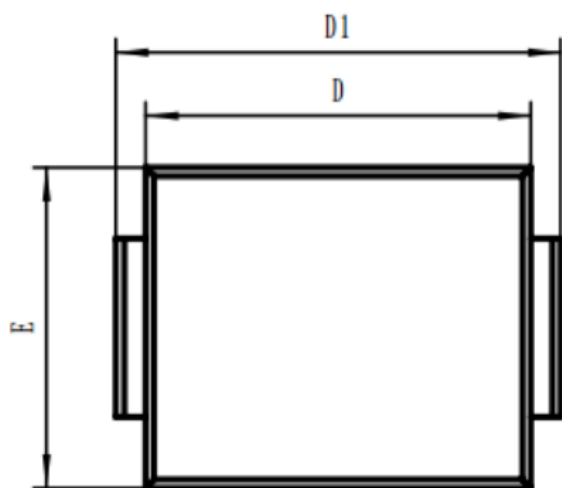
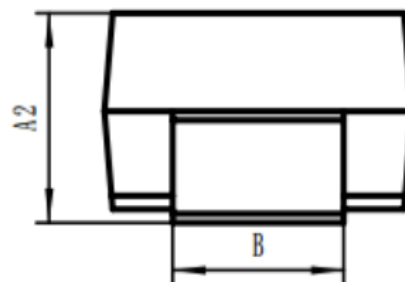
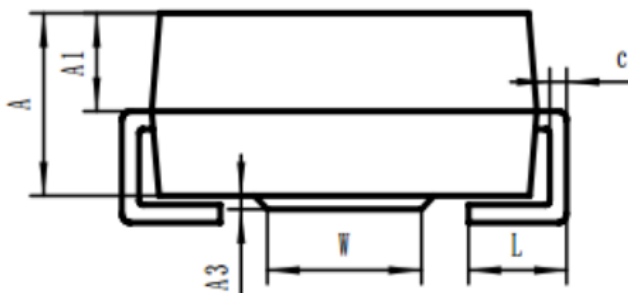
符号 symbol	Min	Max
A	25.4	—
B	5.8	7.6
C	0.7	0.9
D	2.6	3.6



外形尺寸 PACKAGE MECHANICAL DATA

SMB

单位 Unit : mm



SYMBOL	MIN	MAX
A	1.85	2.25
A1	0.90	1.30
A2	2.10	2.60
A3	0.10	0.20
B	1.80	2.20
c	0.10	0.30
D	4.30	4.70
D1	4.95	5.45
E	3.40	3.80
L	0.80	1.50
W	1.60	2.00



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