



SBL10L45

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	10A
V_{RRM}	45 V
T_{Jmax}	150 °C
IFSM	180 A
$V_{F(max)}$	0.45V (@ $T_j=125^\circ\text{C}$)

用途

- 低压、高频整流
- 低压续流电路和保护电路

APPLICATIONS

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

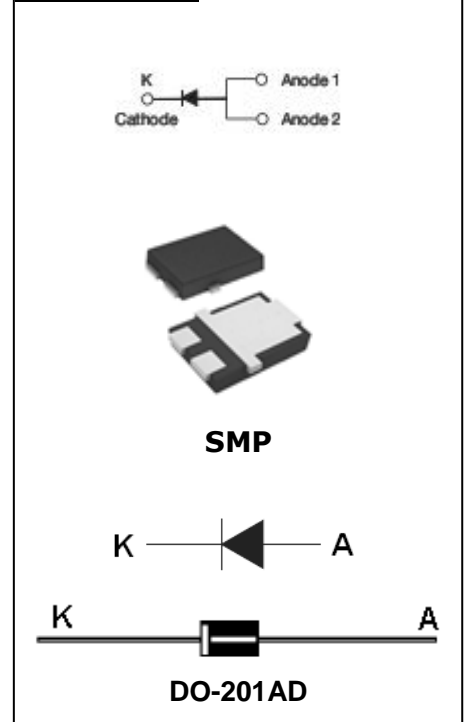
产品特性

- 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

FEATURES

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

封装 Package



订货信息 ORDER MESSAGE

订货型号 Order codes		印记 Marking	封装 Package
有卤-编带 Halogen-Reel	无卤-编带 Halogen Free-Reel		
SBL10L45-D-A	SBL10L45-D-AR	SBL10L45	DO-201AD
SBL10L45-XF-A	STL10L45-XF-AR	SBL10L45	SMP





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}	45	V
最大直流阻断电压 Maximum DC blocking voltage	V_{DC}	45	V
正向平均整流电流 $T_c=100^\circ\text{C}$ Average Rectified Forward Current	$I_{F(AV)}$	10	A
正向峰值浪涌电流 Surge non repetitive forward current (额定负载 10ms 半正弦波) 10 ms single half-sine-wave	I_{FSM}	180	A
最高结温 Maximum junction temperature	T_j	150	$^\circ\text{C}$
工作结温和储存温度范围 Storage temperature range	T_{Jmax}/T_{STG}	-55~+150	$^\circ\text{C}$

电特性 ELECTRICAL CHARACTERISTICS

项 目 Parameter	测试条件 Tests conditions		典型值 Value(typ)	最大值 Value(max)	单 位 Unit
I_R	$T_j = 25^\circ\text{C}$	$V_R = V_{RRM}$	0.07	0.10	mA
	$T_j = 125^\circ\text{C}$	$V_R = V_{RRM}$	7	10	
V_F	$T_j = 25^\circ\text{C}$	$I_F = 10\text{A}$	0.45	0.50	V
	$T_j = 25^\circ\text{C}$	$I_F = 15\text{A}$	0.51	0.55	
	$T_j = 125^\circ\text{C}$	$I_F = 10\text{A}$	0.41	0.45	
	$T_j = 125^\circ\text{C}$	$I_F = 15\text{A}$	0.43	0.48	
C_J	5V 1MHz		800	—	pF

热特性 THERMAL CHARACTERISTICS

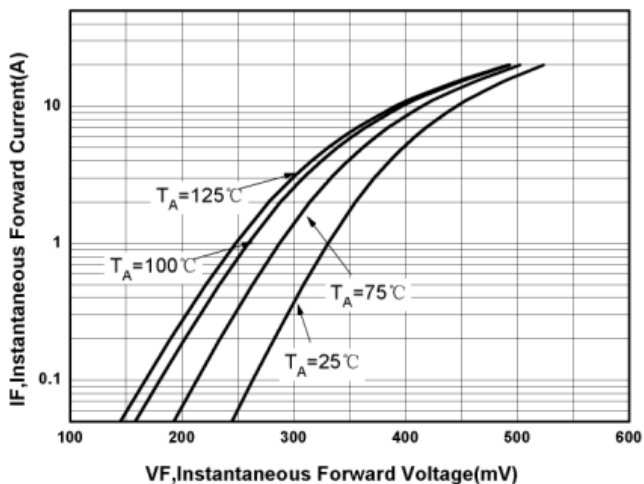
项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	$R_{th(j-c)}$	—	35	$^\circ\text{C}/\text{W}$
结到环境的热阻 Thermal resistance from junction to ambient	$R_{th(j-a)}$	—	200	



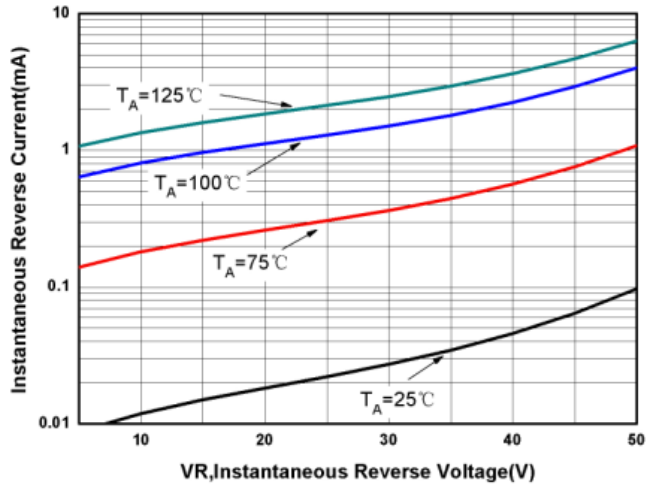


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

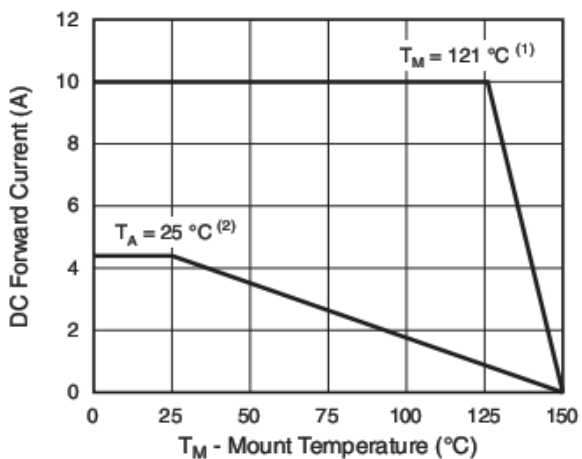
IF vs VF



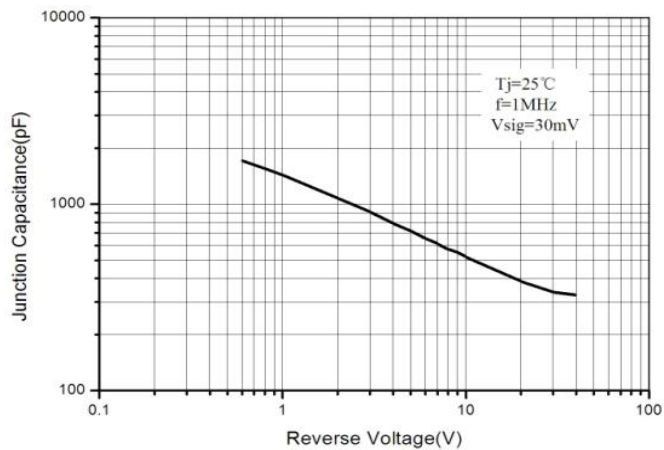
IR vs VR

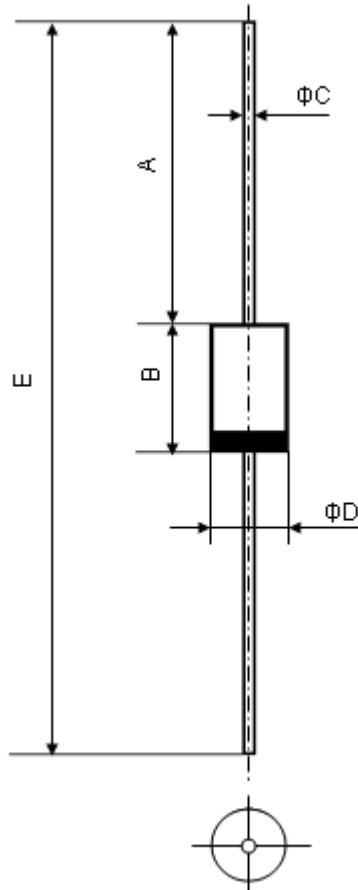


IF vs TM



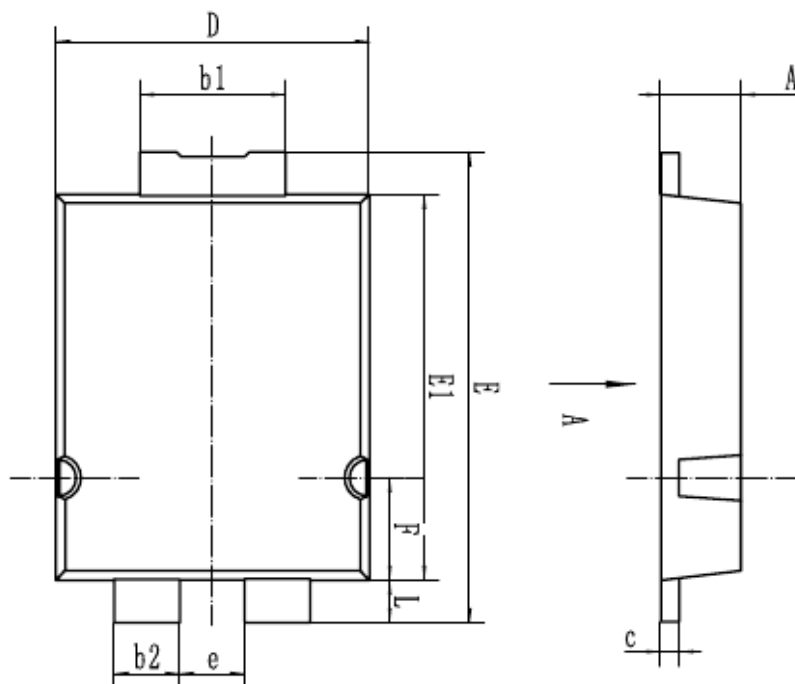
CJ vs VR



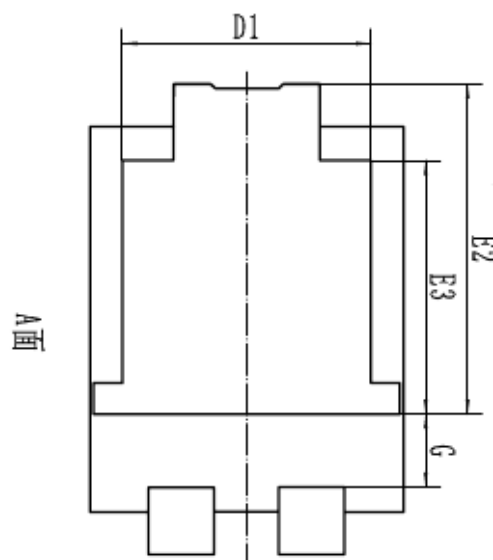


符号 Symbol	Min	Max
A	25.4	--
B	8.5	9.5
C	1.2	1.3
D	5.0	5.6
E	59.5	64





符号 Symbol	Min	Max
A	1.00	1.40
b1	1.70	2.30
b2	0.60	1.20
c	0.10	0.40
D	4.00	4.60
D1	3.10	3.70
E	6.20	6.80
E1	5.00	5.60
E2	4.25	4.85
E3	3.20	3.80
e	0.70	1.10
F	1.35	1.95
G	0.90	
L	0.40	0.80





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3. 在电路设计时请不要超过器件的绝对最大额定值，否则会影响整机的可靠性。
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.
4. Jilin Sino-microelectronics co., Ltd reserves the right to make changes in this specification sheet and is subject to change without prior notice.

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