



SB15N045L

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	15A
V_{RRM}	45 V
T_j	200 °C
IFSM	300 A
$V_{F(max)}$	0.47V (@ $T_j=125^{\circ}C$)

用途

- 低压、高频整流
- 低压续流电路和保护电路
- 太阳能电池接线盒旁路二极管

APPLICATIONS

- Low voltage, high frequency rectifier
- Freewheeling circuit and protection circuit of low voltage
- solar cell junction box as a bypass diode

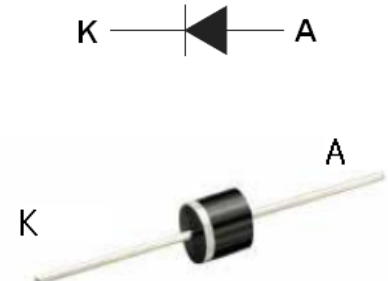
产品特性

- 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

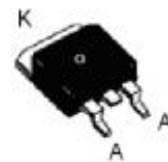
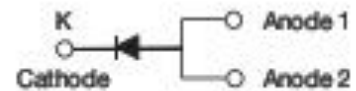
FEATURES

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

封装 Package



R-6



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		
N/A	N/A	SB15N045L-DA-A	SB15N045L-DA-AR	SB15N045	R-6
N/A	N/A	SB15N045L-S-A	SB15N045L-S-AR	SB15N045	TO-263
SB15N045L-S-B	SB15N045L-S-BR	N/A	N/A	SB15N045	TO-263





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 Average Rectified Forward Current	$I_{F(AV)}$	15	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}	300	A
正向工作结温 Operating junction temperature In DC forward mode	T_J	-50~200	$^\circ\text{C}$
反向工作结温 At reduced reverse voltage: $V_R \leq 80\% V_{RRM}$		-50~150	
反向工作结温 At reduced reverse voltage: $V_R \leq 50\% V_{RRM}$		-50~170	
储存温度 Storage temperature range	T_{STG}	-50~+170	$^\circ\text{C}$

@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	$T_J = 25^\circ\text{C}$	$V_R = V_{RRM}$	0.05	0.1	mA
	$T_J = 125^\circ\text{C}$	$V_R = V_{RRM}$	5	20	
V_F	$T_J = 25^\circ\text{C}$	$I_F = 15\text{A}$	0.49	0.52	V
	$T_J = 125^\circ\text{C}$	$I_F = 15\text{A}$	0.43	0.47	

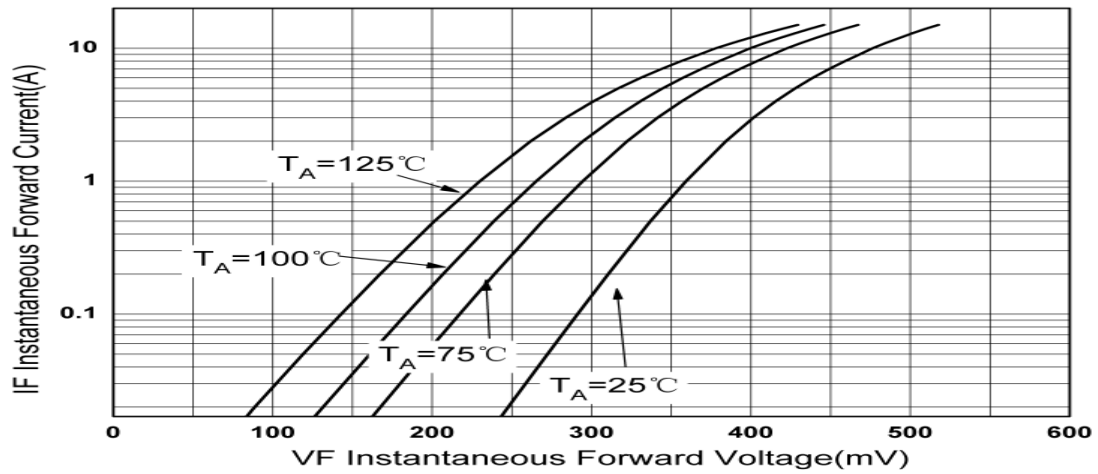
热特性 THERMAL CHARACTERISTICS

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-6		3.0	$^\circ\text{C/W}$
	TO-263		1.0	

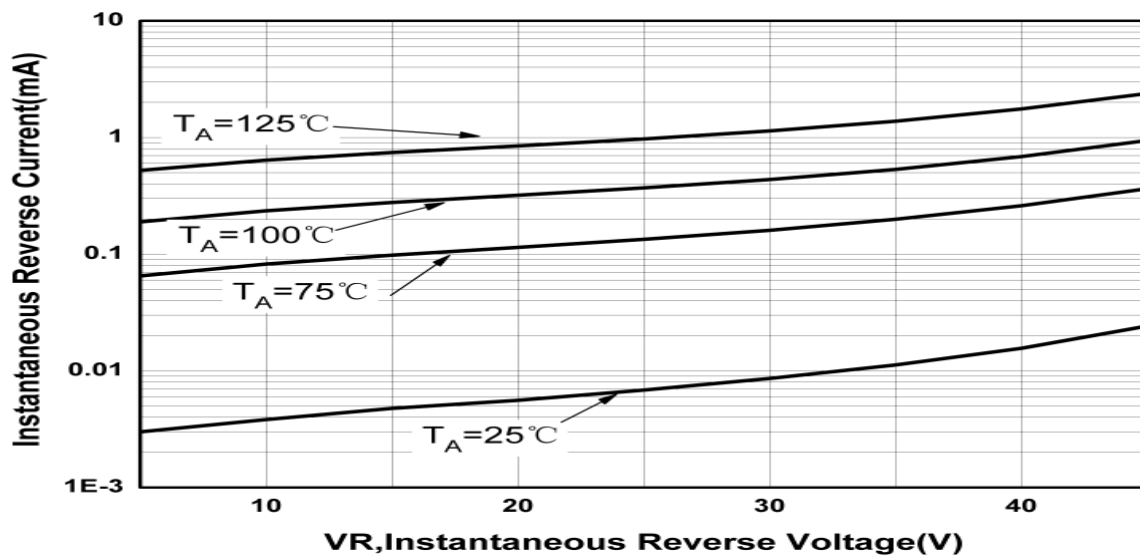




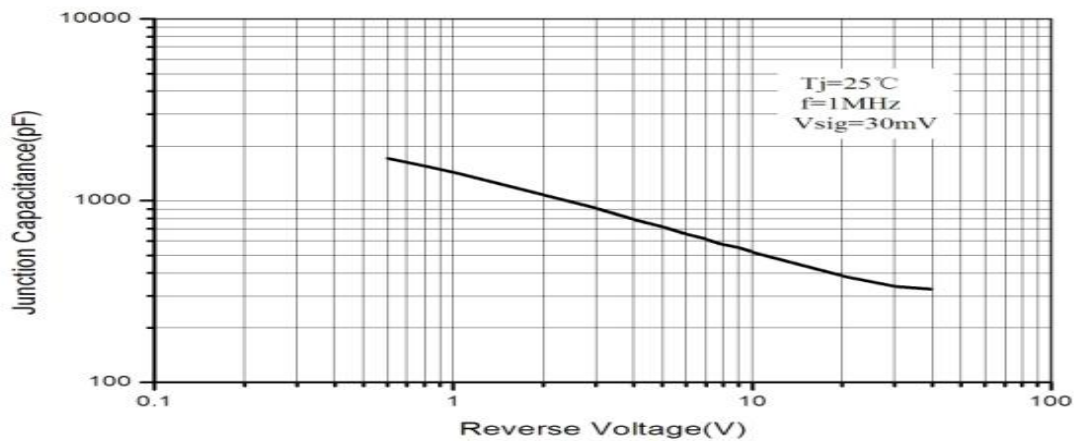
IF vs VF

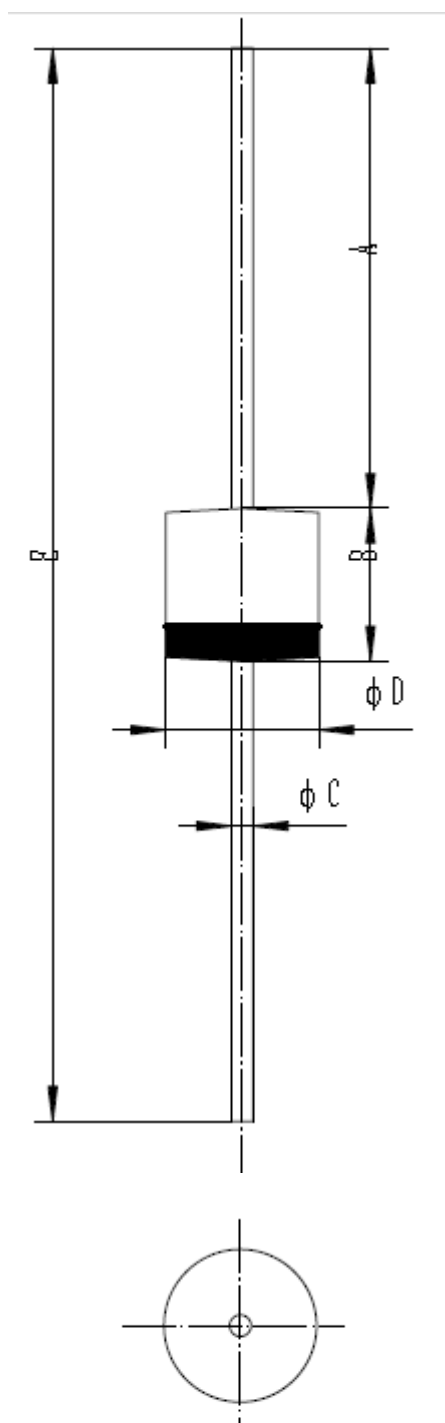


IR vs VR



CJ vs VR



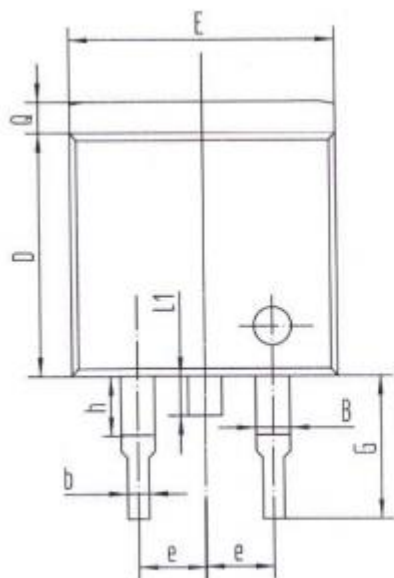


符号 symbol	Min	Max
A	25.4	--
B	8.6	9.1
C	1.2	1.3
D	8.6	9.1
E	59.4	62.9



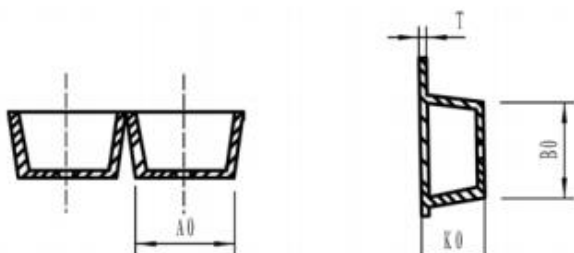
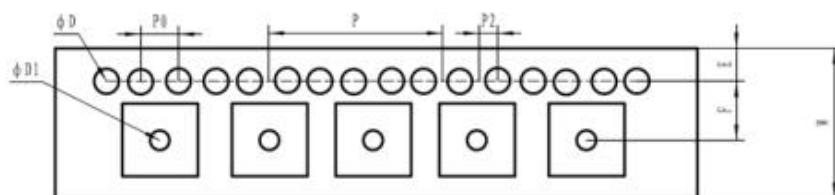
外形尺寸 PACKAGE MECHANICAL DATA
TO-263

单位 Unit : mm



符号 symbol	MIN	MAX
A	4.50	4.90
B	1.20	1.40
D	8.40	8.80
E	9.50	10.50
F	1.20	1.40
F1	2.50	2.90
G	4.50	5.50
L1	1.30	1.60
Q	1.20	1.50
b	0.75	0.95
c	0.35	0.50
e	2.49	2.59
g	1.90	2.80
h	2.30	3.30

编带 REEL



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





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