



# SB30N045

## 主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	20A
$V_{RRM}$	45 V
$T_j$	200 °C
IFSM	350 A
$V_{F(max)}$	0.45V (@ $T_j=125^{\circ}C$ )

### 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

### 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

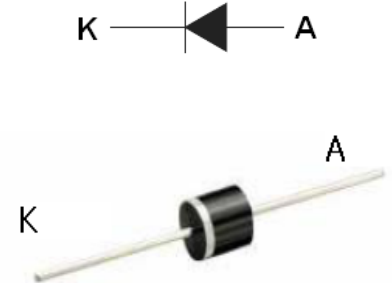
### APPLICATIONS

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

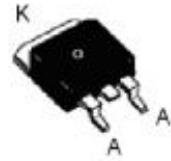
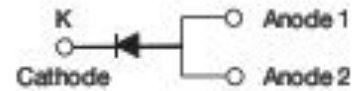
### FEATURES

- 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	SB30N045-DA-A	SB30N045-DA-AR	SB30N045	R-6
N/A	N/A	SB30N045-S-A	SB30N045-S-AR	SB30N045	TO-263
SB30N045-S-B	SB30N045-S-BR	N/A	N/A	SB30N045	TO-263





绝对最大额定值 ABSOLUTE RATINGS (Tc=25℃)

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 <sub>RRM</sub>	45	V
最大直流阻断电压 Maximum DC blocking voltage	V <sub>DC</sub>	45	V
正向平均整流电流 Average Rectified Forward Current	I <sub>F(AV)</sub>	20	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 <sub>FSM</sub>	350	A
正向工作结温 Operating junction temperature In DC forward mode	T <sub>J</sub>	-50~200	℃
反向工作结温 At reduced reverse voltage: VR ≤ 80% VRRM		-50~125	
储存温度 Storage temperature range	T <sub>STG</sub>	-50~+150	℃

@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 <sub>R</sub>	T <sub>j</sub> =25℃	V <sub>R</sub> =V <sub>RRM</sub>	0.13	0.2	mA
	T <sub>j</sub> =125℃	V <sub>R</sub> =V <sub>RRM</sub>	10	50	
V <sub>F</sub>	T <sub>j</sub> =25℃	I <sub>F</sub> =20A	0.48	0.52	V
	T <sub>j</sub> =125℃	I <sub>F</sub> =20A	0.41	0.45	

热特性 THERMAL CHARACTERISTICS

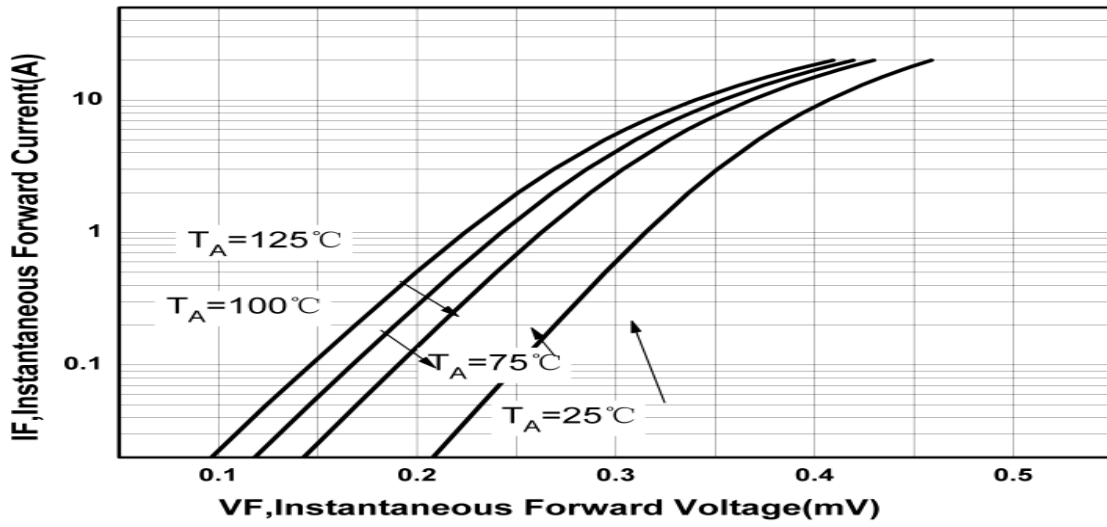
项 目 Parameter	符 号 Symbol	最 小 值 Value(min)	最 大 值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	R-6		3.0	℃/W
	TO-263	R <sub>th(j-c)</sub>	2.5	



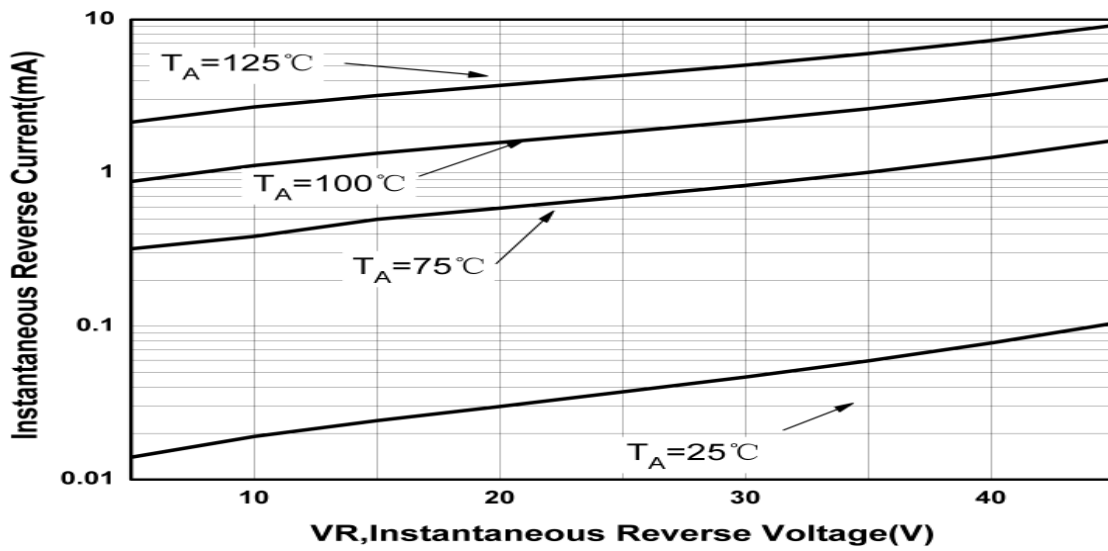


特征曲线 ELECTRICAL CHARACTERISTICS

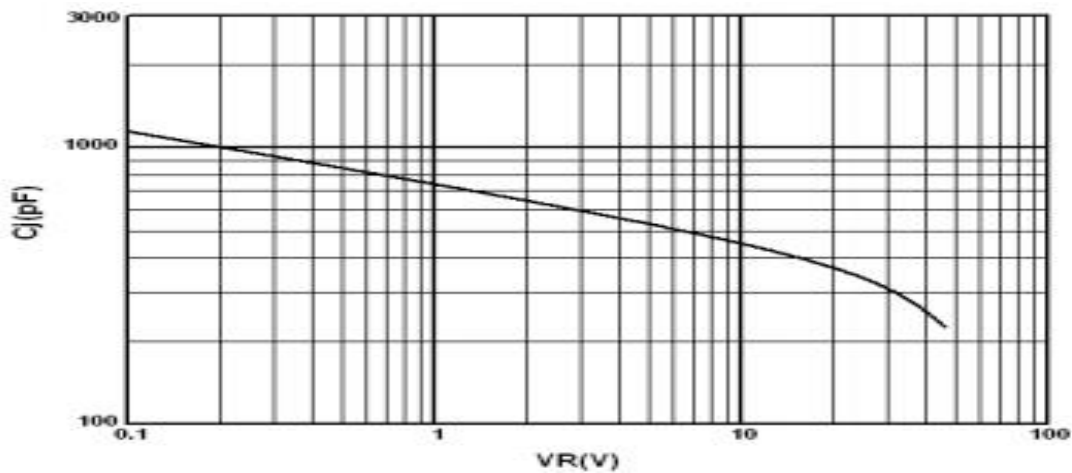
IF vs VF

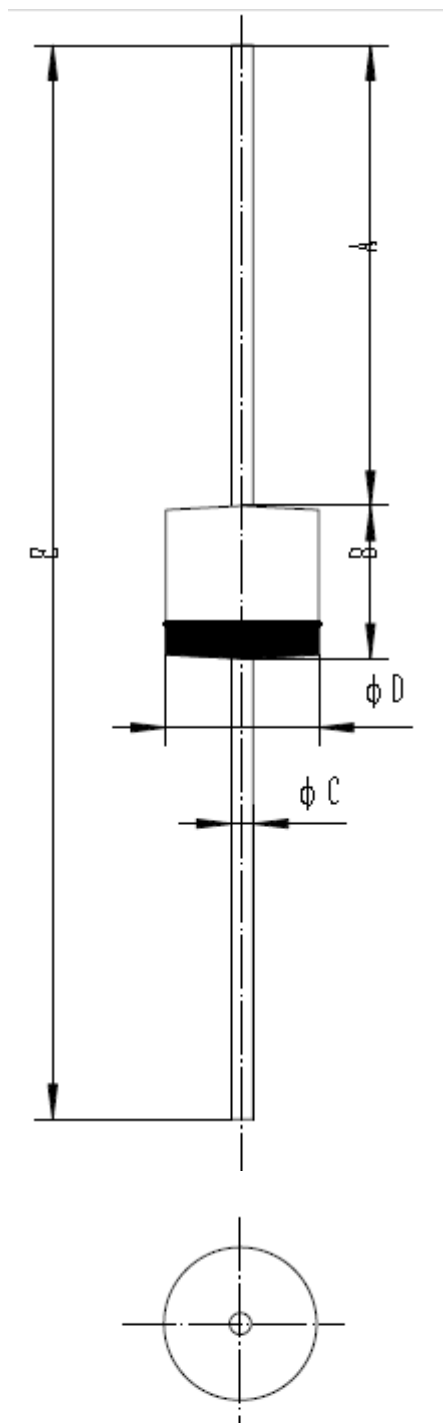


IR vs VR



CJ vs VR





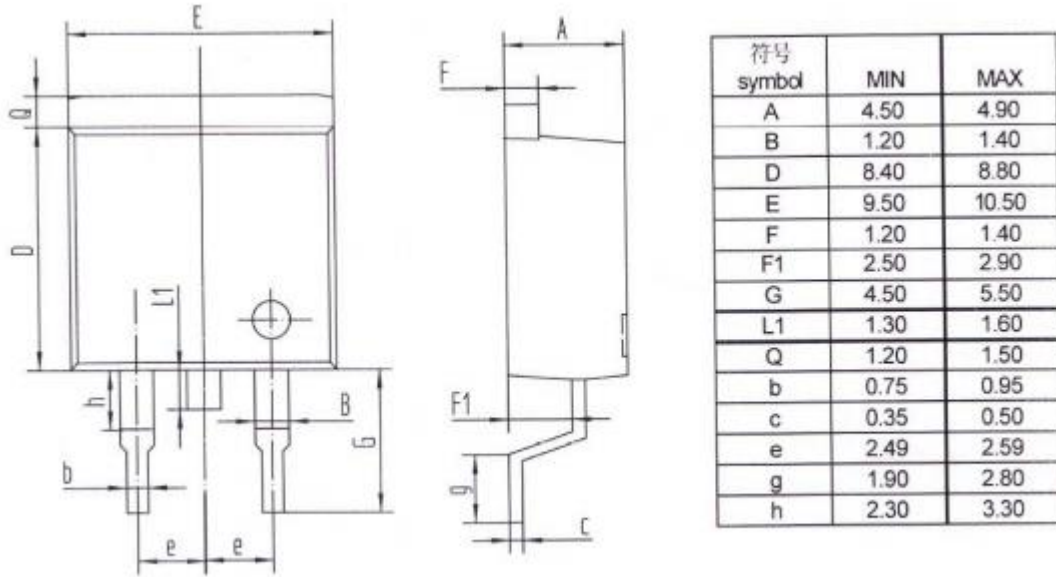
符号 symbol	Min	Max
A	25.4	--
B	8.6	9.1
C	1.2	1.3
D	8.6	9.1
E	59.4	62.9



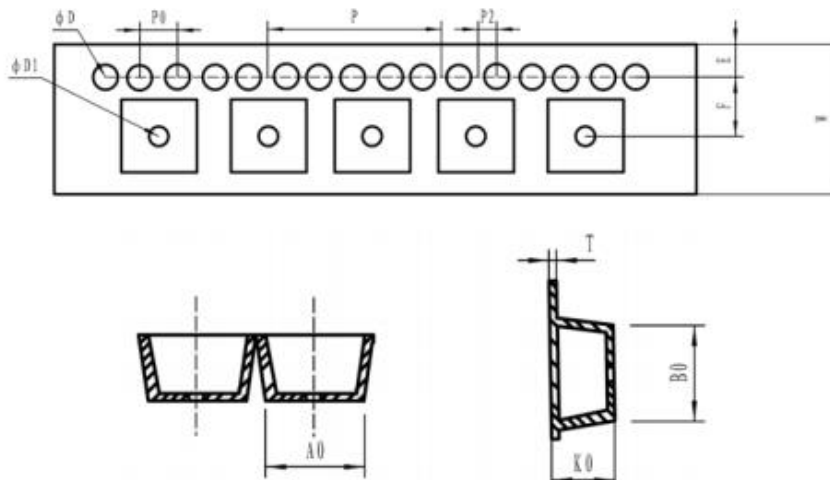


外形尺寸 PACKAGE MECHANICAL DATA  
TO-263

单位 Unit : mm



编带 REEL



产品尺寸规格 (UNIT: mm)					
规格	v	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			



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**联系方式****吉林华微电子股份有限公司**

公司地址：吉林省吉林市深圳街 99 号

邮编：132013

总机：86-432-64678411

传真：86-432-64665812

网址：[www.hwdz.com.cn](http://www.hwdz.com.cn)

**市场营销部**

地址：吉林省吉林市深圳街 99 号

邮编：132013

电话：86-432-64675588

64675688

64678411-3098/3099

传真：86-432-64671533

**CONTACT****JILIN SINO-MICROELECTRONICS CO., LTD.**

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.

Post Code: 132013

Tel: 86-432-64678411

Fax: 86-432-64665812

Web Site: [www.hwdz.com.cn](http://www.hwdz.com.cn)

**MARKET DEPARTMENT**

ADD: No.99 Shenzhen Street, Jilin City, Jilin Province, China.

Post Code: 132013

Tel: 86-432-64675588

64675688

64678411-3098/3099

Fax: 86-432-64671533

