



STS15100

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	15A
V_{RRM}	100V
T_{Jmax}	150 °C
IFSM	250 A
$V_{F(max)}$	0.62V (@ $T_j=125^{\circ}C$)

用途

- 低压、高频整流
- 低压续流电路和保护电路

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

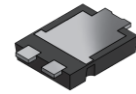
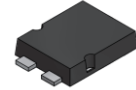
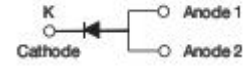
APPLICATIONS

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

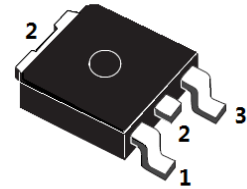
FEATURES

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

封装 Package



SMP



DPAKM

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		
STS15100-XF-A	STS15100-XF-AR	STS15100	SMP
STS15100-RM-A	STS15100-RM-AR	STS15100	DPAKM





绝对最大额定值 ABSOLUTE RATINGS (T_c=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 _{RRM}	100	V
最大直流阻断电压 Maximum DC blocking voltage	V _{DC}	100	V
正向平均整流电流T _c =100℃ 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 10ms 半正弦波) 10 ms single half-sine-wave	I _{FSM}	250	A
最高结温 Maximum junction temperature	T _j	150	℃
工作结温和储存温度范围 Storage temperature range	T _{Jmax} /T _{STG}	-55~+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 _R	T _j =25℃	V _R =V _{RRM}	0.02	
T _j =125℃		V _R =V _{RRM}	4.0	20	
V _F	T _j =25℃	I _F =10A	0.53	—	V
	T _j =25℃	I _F =15A	0.58	0.65	
	T _j =25℃	I _F =20A	0.65	—	
	T _j =125℃	I _F =10A	0.49	—	
	T _j =125℃	I _F =15A	0.56	0.62	
	T _j =125℃	I _F =20A	0.62	—	

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	DPAKM	—	5	℃/W
结到环境的热阻 Thermal resistance from junction to ambient			80	
	SMP	—	200	

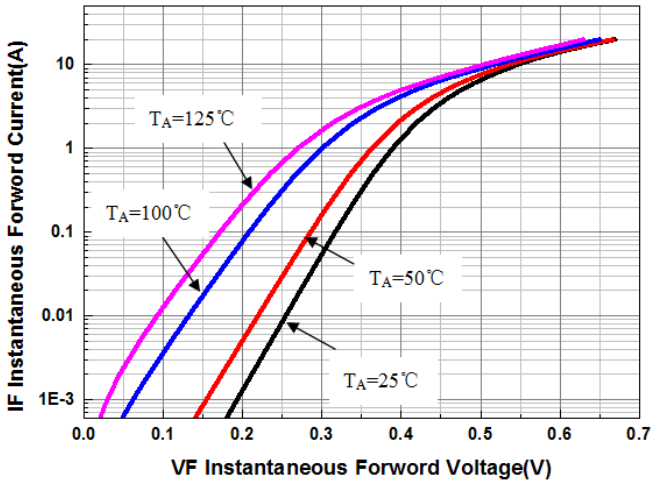
特征曲线 ELECTRICAL CHARACTERISTICS (curves)



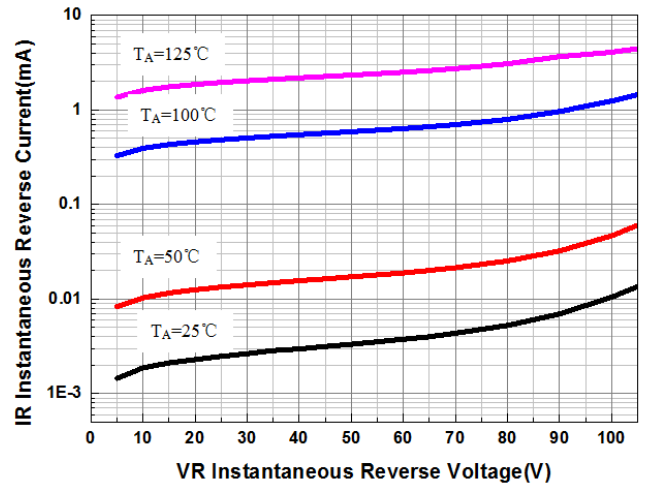


沟槽肖特基势垒二极管 TRENCH SCHOTTKY BARRIER DIODE

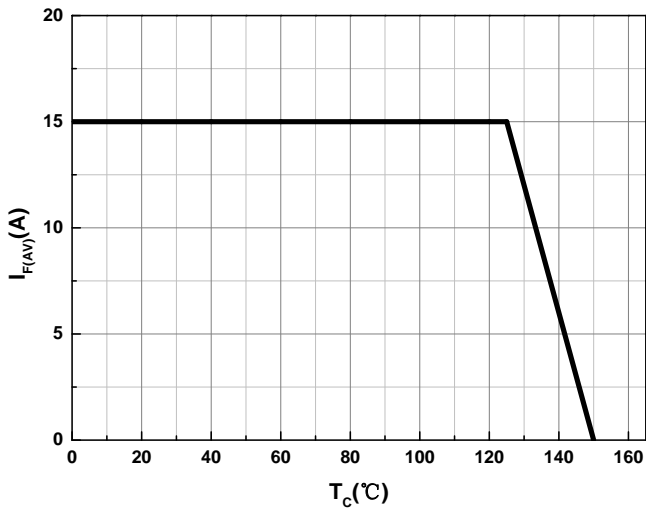
IF vs VF



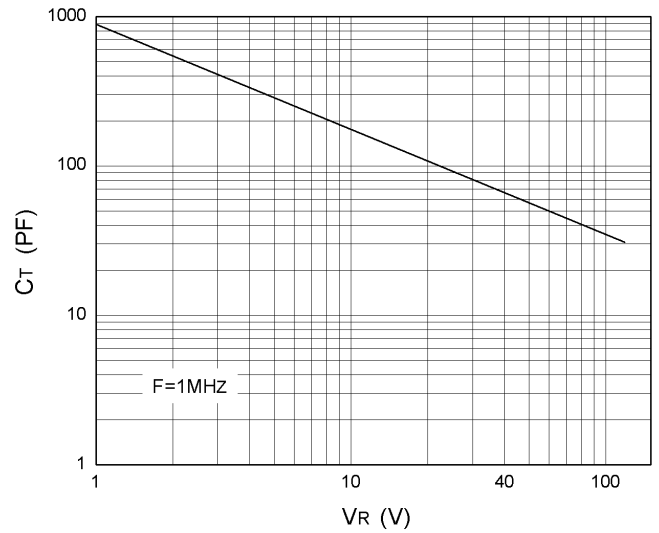
IR vs VR



IF vs TM

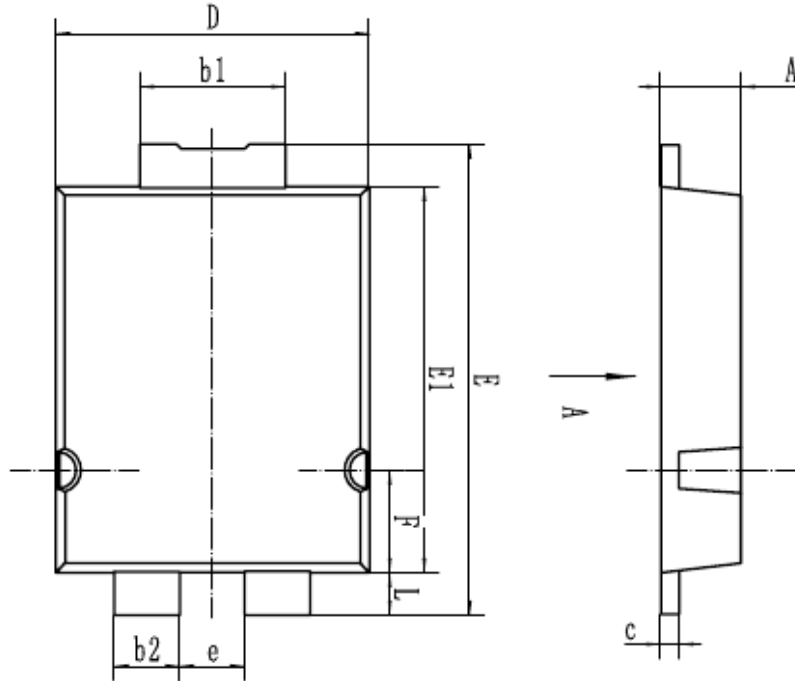


CJ vs VR

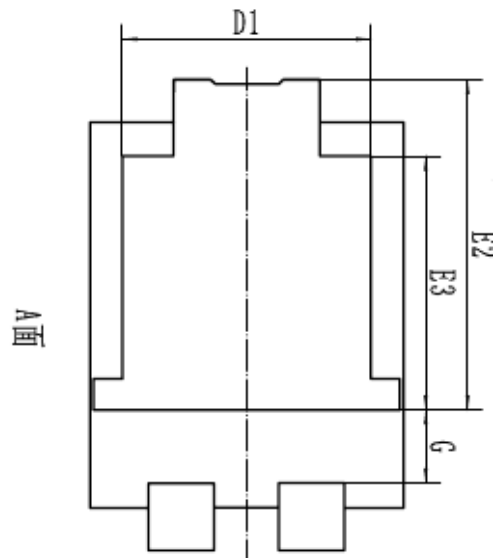


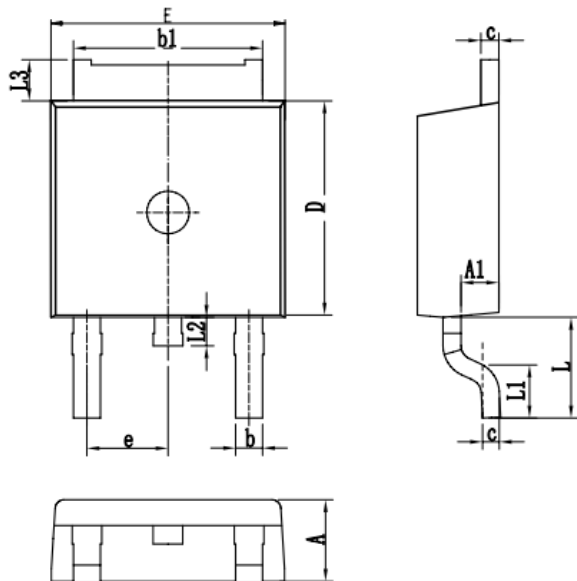


单位 Unit : mm



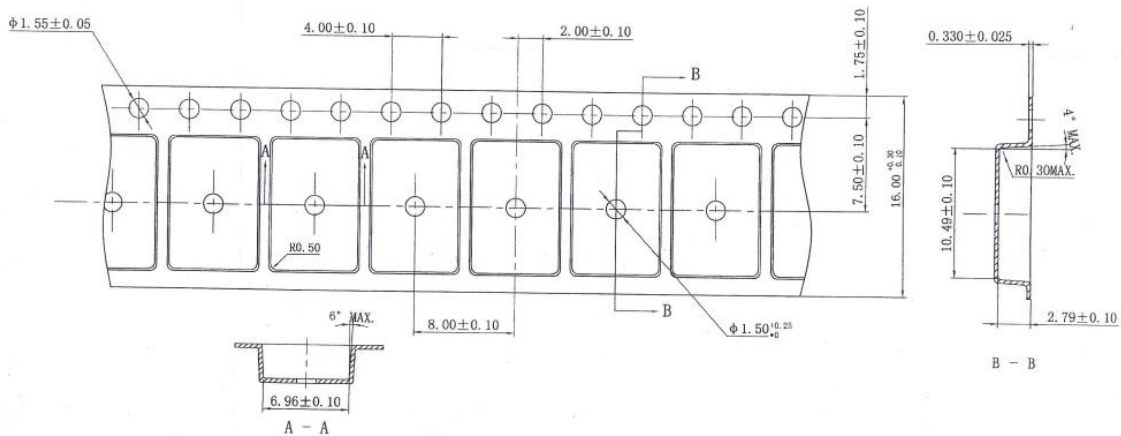
符号 Symbol	Min	Max
A	1.00	1.40
b1	1.70	2.30
b2	0.60	1.20
c	0.10	0.40
D	4.00	4.60
D1	3.10	3.70
E	6.20	6.80
E1	5.00	5.60
E2	4.25	4.85
E3	3.20	3.80
e	0.70	1.10
F	1.35	1.95
G	0.90	
L	0.40	0.80





SYMBOL	mm	
	MIN	MAX
A	2.10	2.50
A1	0.80	1.20
b	0.66	0.96
b1	5.10	5.50
c	0.40	0.62
D	5.85	6.45
E	6.30	6.90
e	2.286BSC	
L	2.40	3.00
L1	0.85	1.45
L2	0.60	1.10
L3	0.67	1.07

编带 REEL





沟槽肖特基势垒二极管
TRENCH SCHOTTKY BARRIER DIODE

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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

NOTE

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2. We strongly recommend customers check carefully on the trademark when buying our product, if there is any question, please don't be hesitate to contact us.
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.

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

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

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

附录 (Appendix): 修订记录 (Revision History)

日期 Date	旧版本 Last Rev.	新版本 New Rev.	修订内容 Description of Changes

