



STS10100S

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	10A
V_{RRM}	100V
T_{Jmax}	150 °C
IFSM	150A
$V_{F(max)}$	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

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

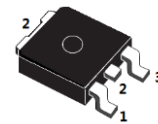
FEATURES

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

封装 Package



SMP-1



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		
STS10100S-XG-AR	STS10100S-XG-A	STS10100S	SMP-1
STS10100S-RM-AR	STS10100S-RM-A	STS10100S	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)}	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}	150	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}	-40~+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	0.05	mA
	T _j =125℃	V _R =V _{RRM}	3.0	20	
V _F	T _j =25℃	I _F =5A	0.54	0.60	V
	T _j =25℃	I _F =10A	0.65	0.7	
	T _j =125℃	I _F =5A	0.51	0.55	
	T _j =125℃	I _F =10A	0.62	0.65	

热特性 THERMAL CHARACTERISTICS

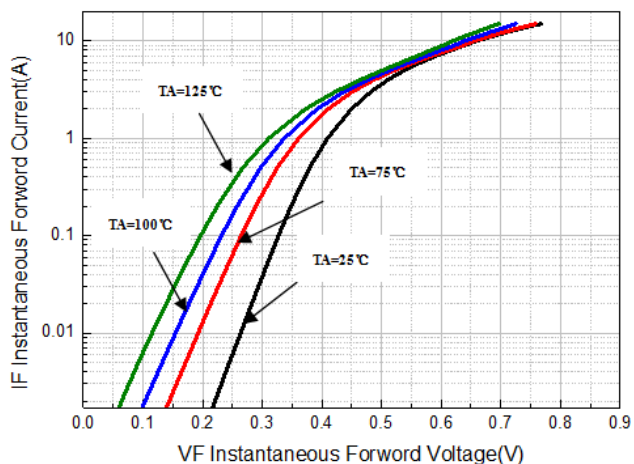
项 目 Parameter	符 号 Symbol	最小值 Value(min)	最大值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	R _{th(j-c)}	—	5	℃/W
			35	
结到环境的热阻 Thermal resistance from junction to ambient	R _{th(j-a)}	—	80	
			200	



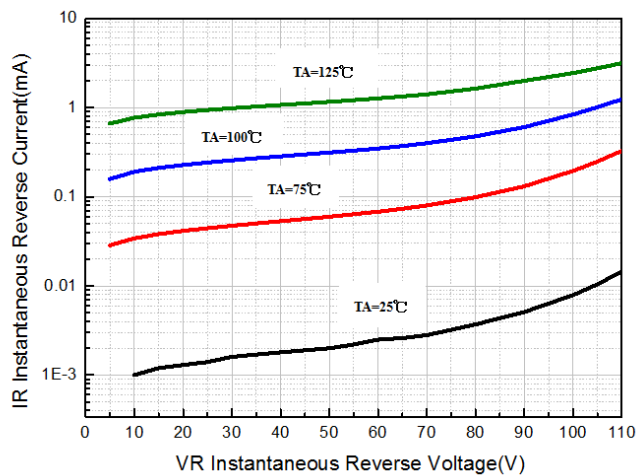


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

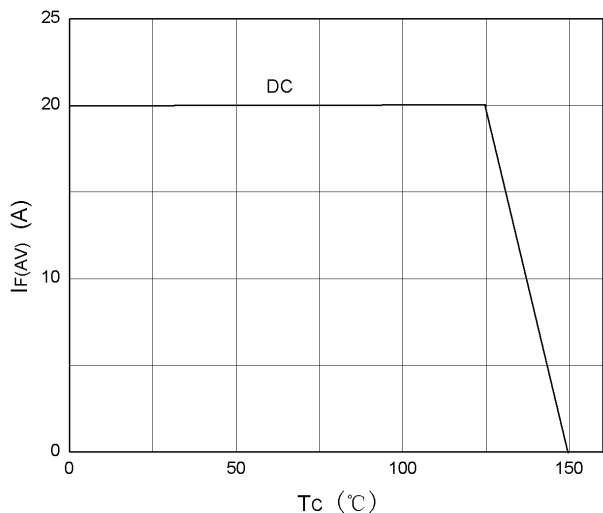
IF vs VF



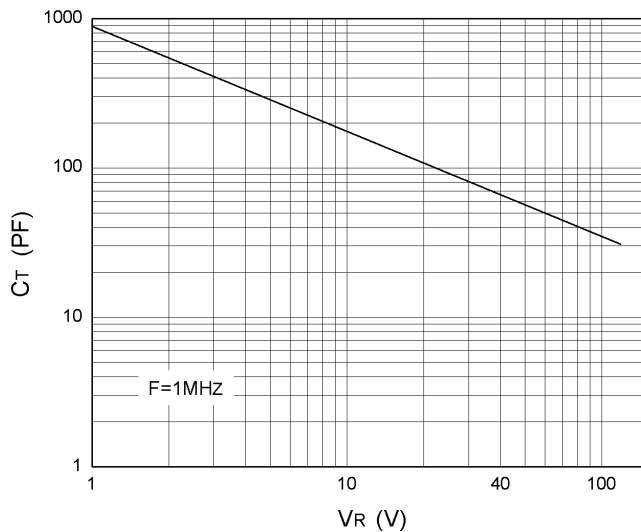
IR vs VR

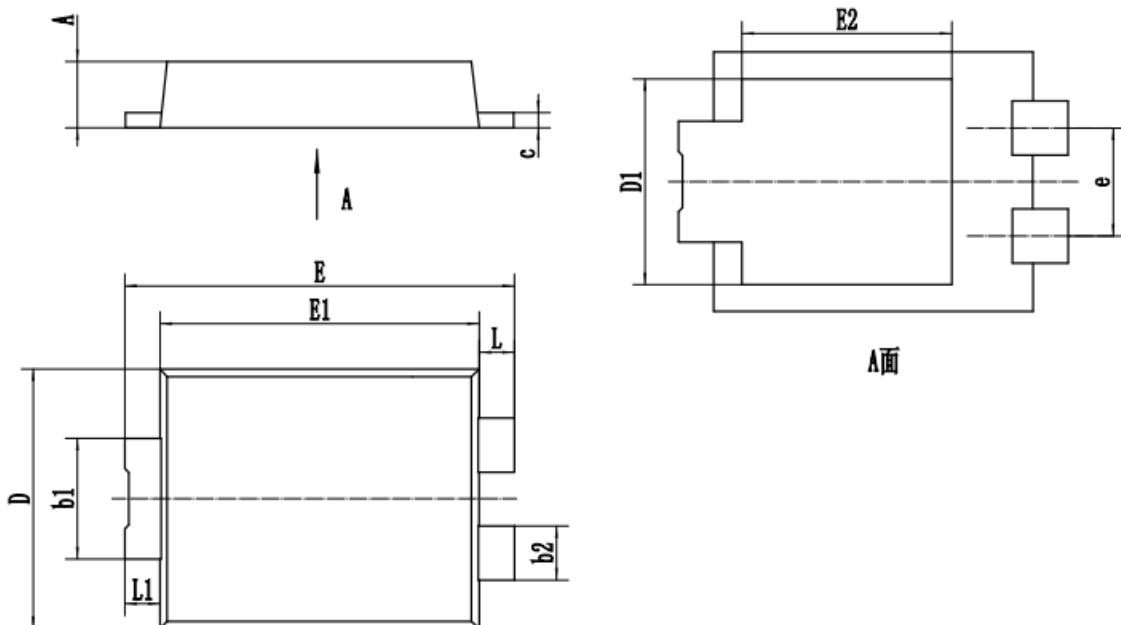


IF(AV) vs Tc



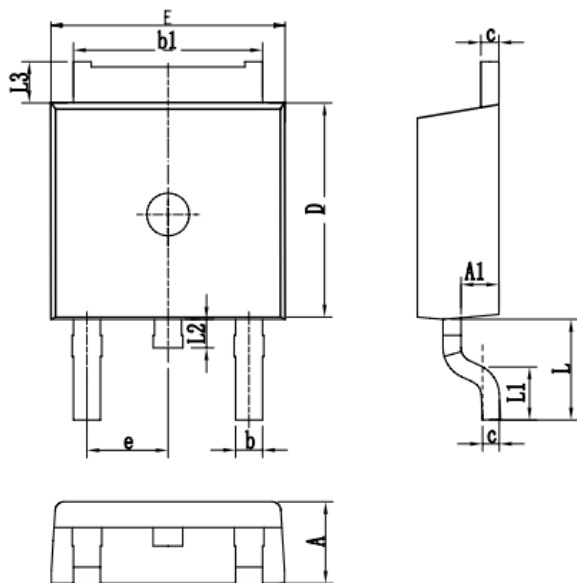
CT vs VR





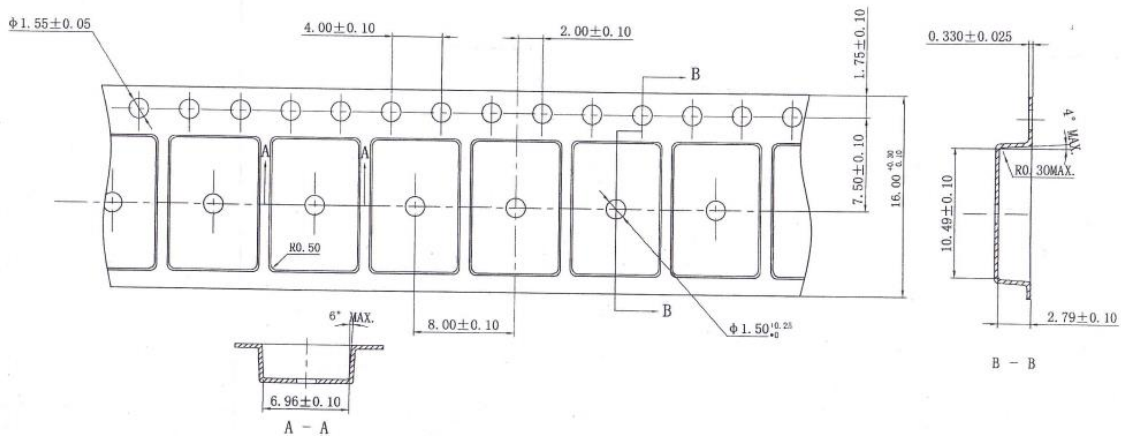
符号 Symbol	Min	Max
A	0.90	1.30
b1	1.60	2.00
b2	0.70	1.10
c	0.28	0.47
D	3.70	4.30
D1	2.80	3.30
E	6.30	6.70
E1	5.20	5.60
E2	3.05	4.05
e	1.60	2.00
L	0.30	0.80
L1	0.30	0.80





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





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