



STS5100L

主要参数 MAIN CHARACTERISTICS

$I_{F(AV)}$	5A
V_{RRM}	100V
T_{Jmax}	150 °C
I_{FSM}	150 A
$V_{F(Typ)}$	0.50V (@ $T_j=125^{\circ}C$)

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

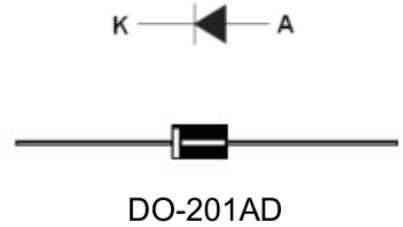
产品特性

- 低功耗，高效率
- 良好的高温特性
- 沟槽技术，高可靠性
- 环保（RoHS）产品

FEATURES

- Low power loss, high efficiency
- High Operating Junction Temperature
- Trench Technology, High reliability
- RoHS product

封装 Package



SMB

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	STS5100L-D-A	STS5100L-D-AR	STS5100L	DO-201AD
N/A	N/A	STS5100L-XC-A	STS5100L-XC-AR	STS5100L	SMB





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)}	5	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}	-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}	10	50	uA
	T _j =125℃	V _R =V _{RRM}	4.8	10	mA
V _F	T _j =25℃	I _F =5.0A	0.57	0.62	V
	T _j =125℃	I _F =5.0A	0.50	——	

热特性 THERMAL CHARACTERISTICS

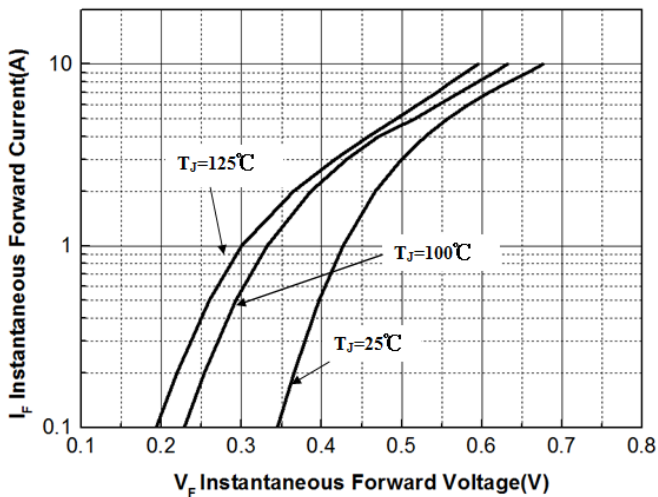
项 目 Parameter	符 号 Symbol	最 小 值 Value(min)	最 大 值 Value(max)	单 位 Unit
结到管壳的热阻 Thermal resistance from junction to case	DO-201AD	——	25	℃/W
	SMB		40	
结到环境的热阻 Thermal resistance from junction to ambient	DO-201AD	——	70	
	SMB		140	



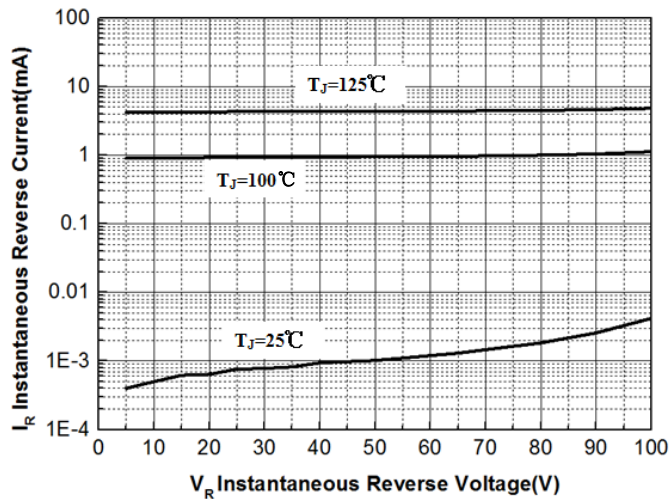


特征曲线 ELECTRICAL CHARACTERISTICS (curves)

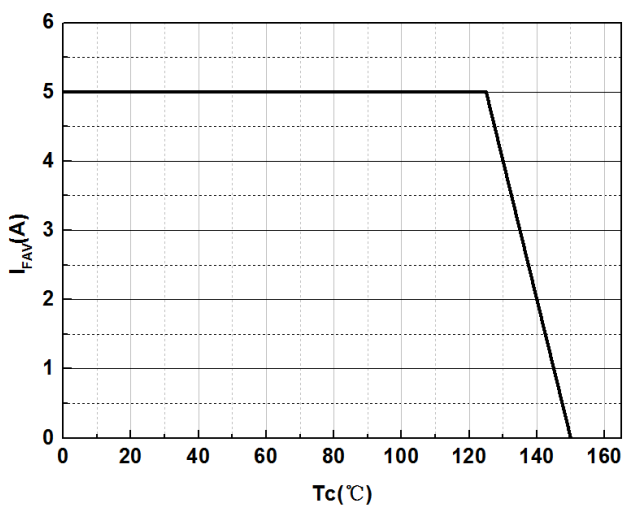
I_F VS V_F



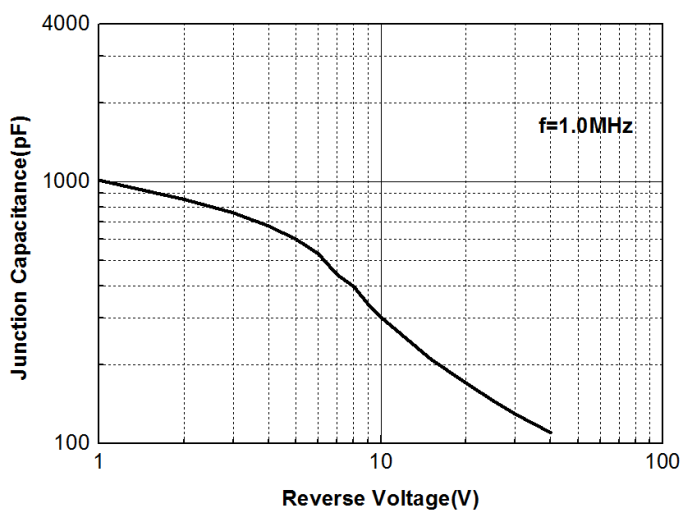
I_R VS V_R

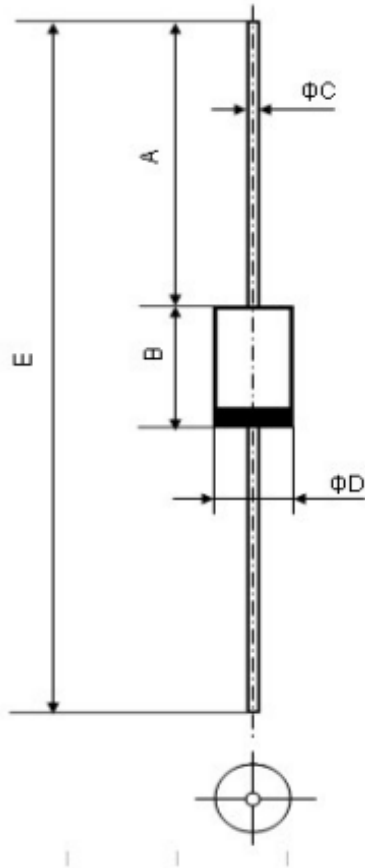


I_F VS T_C



C_J VS V_R





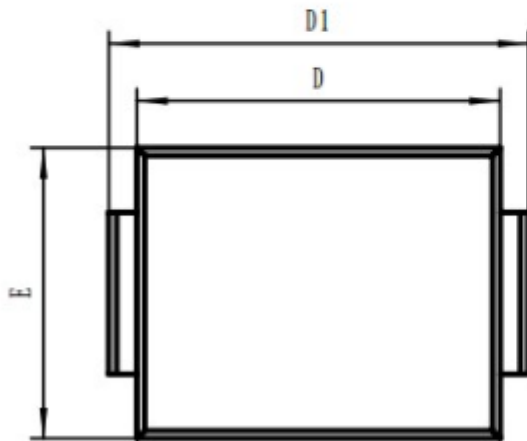
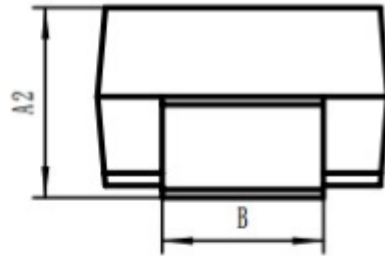
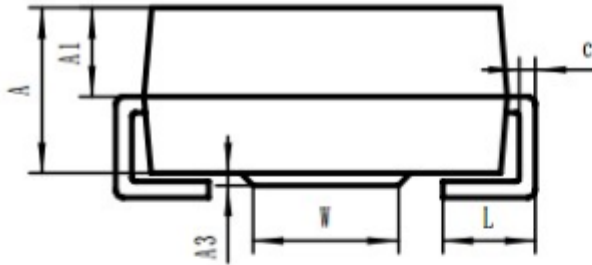
符号 Symbol	Min	Max
A	25.4	--
B	8.5	9.5
C	1.2	1.3
D	5.0	5.6
E	59.5	64





外形尺寸 PACKAGE MECHANICAL DATA
SMB

单位 Unit : mm



SYMBOL	MM	
	MIN	MAX
A	1.70	2.25
A1	0.90	1.30
A2	2.10	2.60
A3	0.00	0.30
B	1.80	2.20
c	0.10	0.30
D	4.30	4.70
D1	4.95	5.70
E	3.40	3.80
L	0.80	1.50
W	1.60	2.10





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