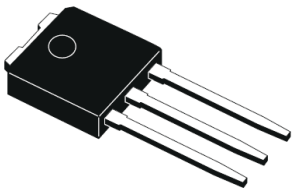
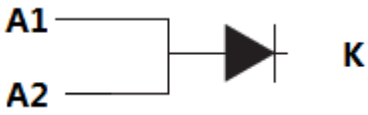
Main Product Characteristics:

IF	20A
VRRM	100V
T_j(max)	150℃
Vf(max)	0.85V



TO251

SSTS20100I



Schematic Diagram

Features and Benefits:

- High Junction Temperature
- High ESD Protection
- High Forward & Reverse Surge capability

Description:

Schottky Barrier Rectifier designed for high frequency switch model power supplies such as adaptors and DC/DC convertors; this product special design for high forward and reverse surge capability

Absolute Rating:

Symbol	Characterizes	Value	Unit
V_{RRM}	Peak Repetitive Reverse Voltage	100	V
$V_{R(RMS)}$	RMS Reverse Voltage	70	V
$I_{F(AV)}$	Average Forward Current	20	A
I_{FSM}	Non Repetitive Surge Forward Current(tp=8.3ms sinusoidal)	150	A
I_{RRM}	Peak Repetitive Reverse Surge Current(Tp=2us)	0.5	A
T_J	Maximum operation Junction Temperature Range	-55~150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

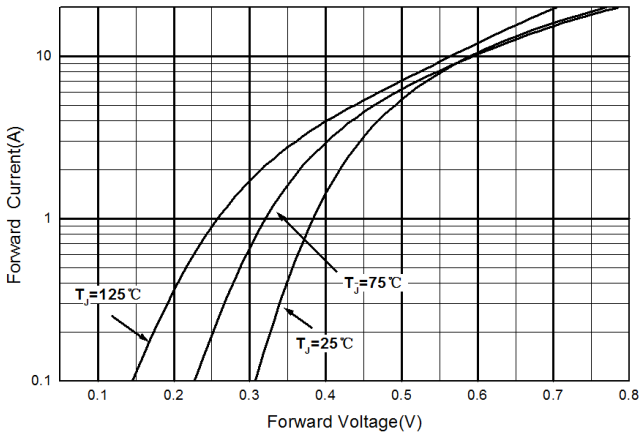
Thermal Resistance

Symbol	Characterizes		Value	Unit
$R_{\theta JC}$	Maximum Thermal Resistance Junction To Case(per leg)	TO251	3.5	℃/W

Electrical Characterizes @T_A=25℃ unless otherwise specified

Symbol	Characterizes	Min	Typ	Max	Unit	Test Condition
V_R	Reverse Breakdown Voltage	100			V	I_R=0.5mA
V_F	Forward Voltage Drop			0.85	V	I_F=20A, T_J=25℃
				0.75		I_F=20A, T_J=125℃
I_R	Leakage Current			0.1	mA	V_R=100V, T_J=25℃
				20		V_R=100V, T_J=125℃

I-V Curves:



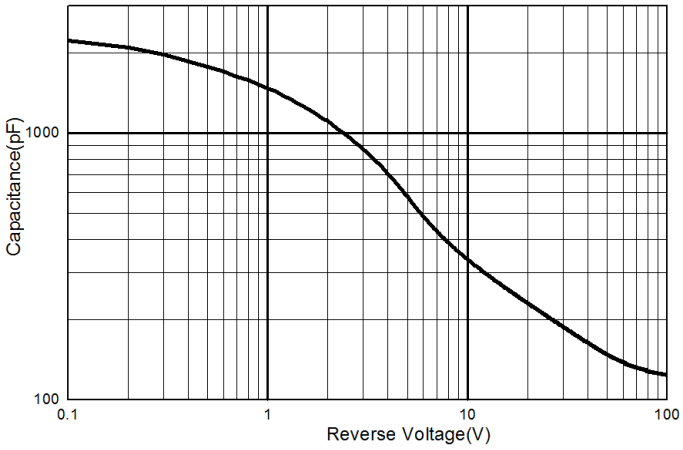


Figure 1：Typical Forward Characteristics

Figure 2：Typical Capacitance Characteristics

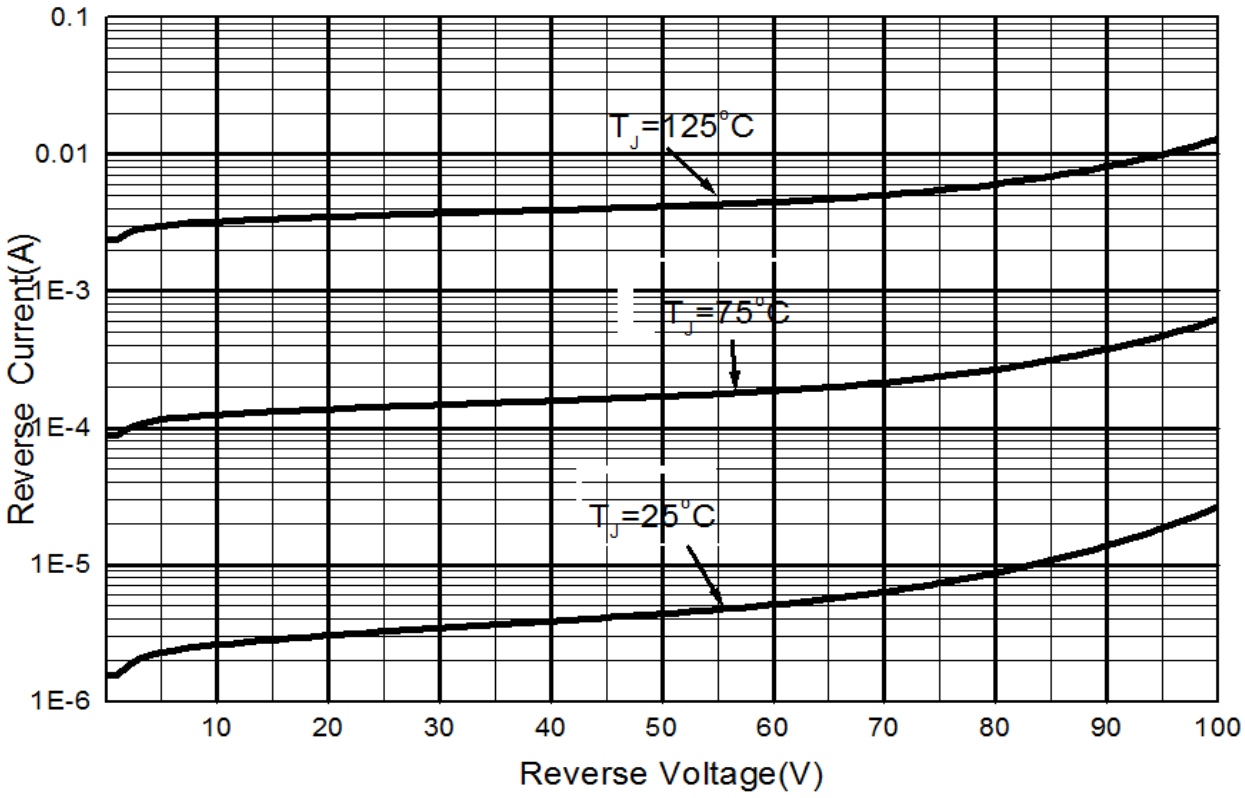
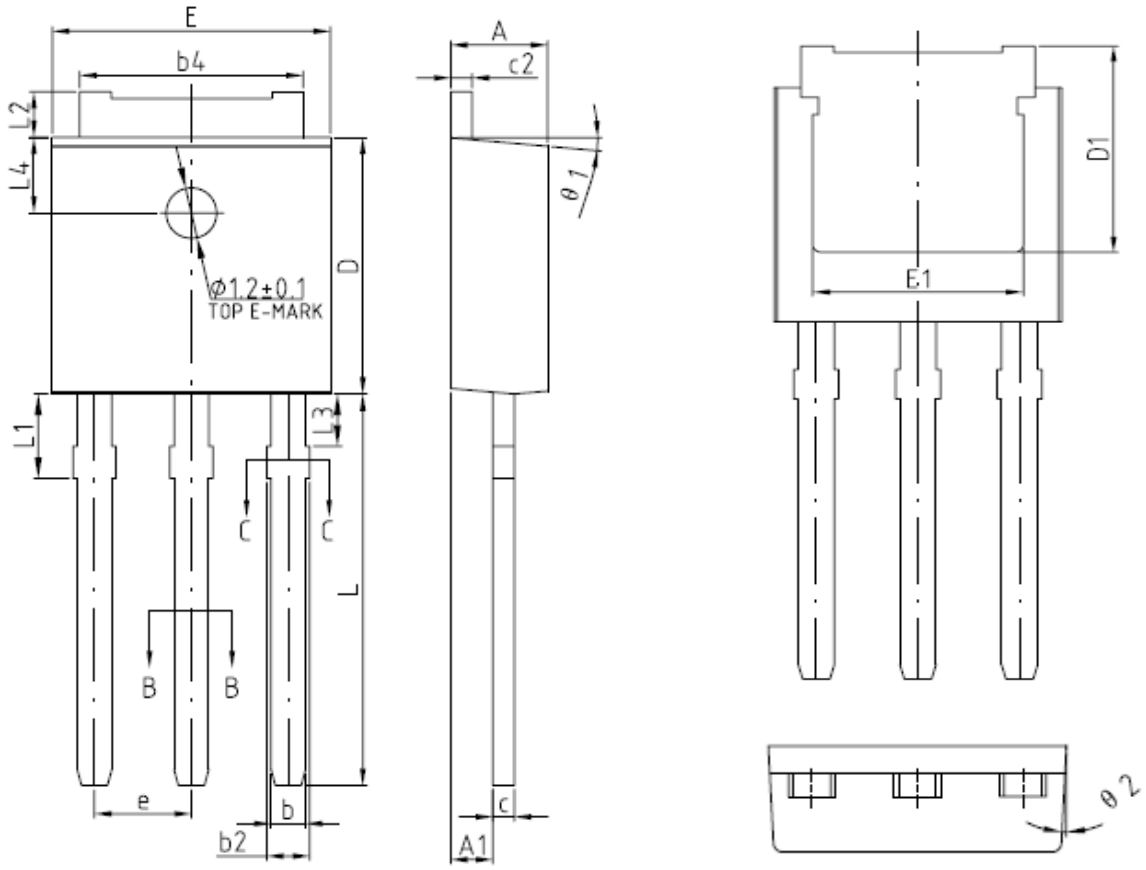


Figure 3：Typical Reverse Characteristics

Mechanical Data：

TO251:



COMMON DIMENSIONS
(UNITS OF MEASURE=MILLIMETER)

SYMBOL	MIN	NOM	MAX
A	2.20	2.30	2.38
A1	0.90	1.00	1.10
b	0.77	–	0.89
b1	0.76	0.81	0.86
b2	0.77	–	1.10
b3	0.77	–	1.10
b4	5.23	5.33	5.43
c	0.47	–	0.60
c1	0.46	0.51	0.56
c2	0.47	–	0.60
D	6.00	6.10	6.20
D1	5.25	–	–
E	6.50	6.60	6.70
E1	4.70	–	–
e		2.28BSC	
L	9.00	9.30	9.60
L1	1.90	2.00	2.10
L2	0.90	–	1.25
L3	1.15	–	1.50
L4		1.80REF	
θ1	3°	5°	7°
θ2	1°	3°	5°

Ordering and Marking Information

Device Marking: SSTS200100I

Package (Available)
TO-251
Operating Temperature Range
C : -55 to 150 ºC

Devices per Unit

Package Type	Units/ Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Carton Box	Units/ Carton Box
TO-251	75	100	7500	4	30000

Reliability Test Program

Test Item	Conditions	Duration	Sample Size
High Temperature Reverse Bias(HTRB)	**Tj=125℃ to 175℃ @ 80% of Max VDSS/VCES/VR**	**168 hours 500 hours 1000 hours**	**3 lots x 77 devices**

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Customer Service

Worldwide Sales and Service:

Sales@silikron.com

Technical Support:

Technical@silikron.com

Suzhou Silikron Semiconductor Corp.

11A, 428 Xinglong Street, Suzhou Industrial Park, P.R.China

TEL: (86-512) 62560688

FAX: (86-512) 65160705

E-mail: Sales@silikron.com