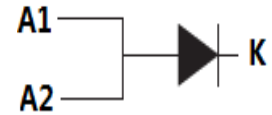


**Main Product Characteristics:**

IF	20A
VRRM	100V
Tj(max)	150°C
Vf(max)	0.85V



TO252  
SSTS20100D



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 converters; this product special design for high forward and reverse surge capability.

**Absolute Rating:**

Symbol	Characterizes	Value	Unit
V <sub>RRM</sub>	Peak Repetitive Reverse Voltage	100	V
V <sub>R(RMS)</sub>	RMS Reverse Voltage	70	V
I <sub>F(AV)</sub>	Average Forward Current	20	A
I <sub>FSM</sub>	Non Repetitive Surge Forward Current(tp=8.3ms sinusoidal)	150	A
I <sub>R(RM)</sub>	Peak Repetitive Reverse Surge Current(Tp=2us)	2	A
T <sub>J</sub>	Maximum operation Junction Temperature Range	-55~150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C

**Thermal Resistance**

Symbol	Characterizes	Value	Unit
R <sub>θJC</sub>	Maximum Thermal Resistance Junction To Case	2	°C/W
R <sub>θJC</sub>	(per leg)		

**Electrical Characterizes @T<sub>A</sub>=25°C unless otherwise specified**

Symbol	Characterizes	Min	Typ	Max	Unit	Test Condition
V <sub>R</sub>	Reverse Breakdown Voltage	100			V	I <sub>R</sub> =0.5mA
V <sub>F</sub>	Forward Voltage Drop			0.85	V	I <sub>F</sub> =20A, T <sub>J</sub> =25°C
				0.78		I <sub>F</sub> =20A, T <sub>J</sub> =125°C
I <sub>R</sub>	Leakage Current			0.2	mA	V <sub>R</sub> =100V, T <sub>J</sub> =25°C
				50		V <sub>R</sub> =100V, T <sub>J</sub> =125°C

I-V Curves:

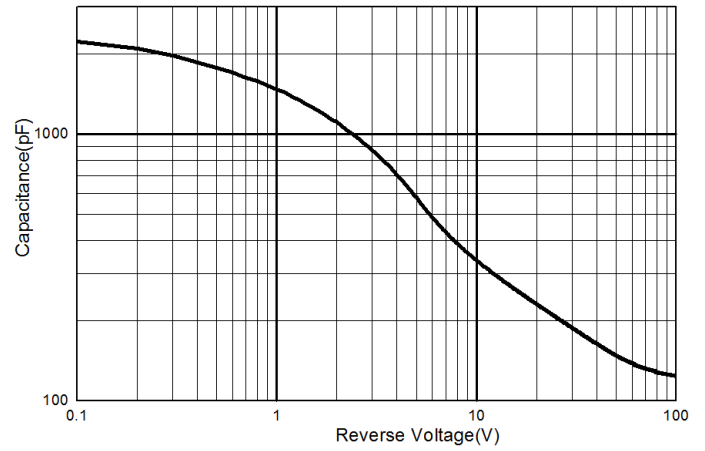
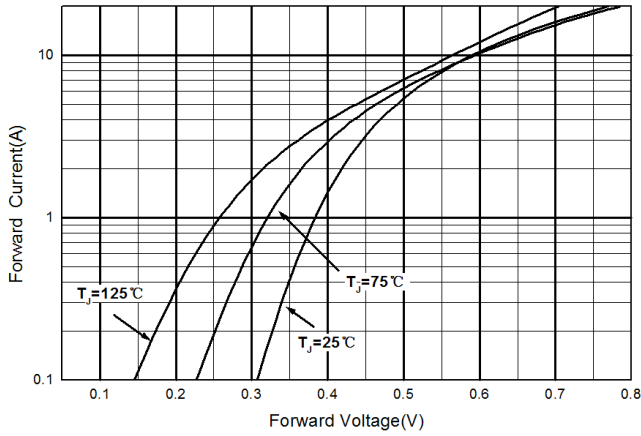


Figure 1: Typical Forward Characteristics

Figure 2: Typical Capacitance Characteristics

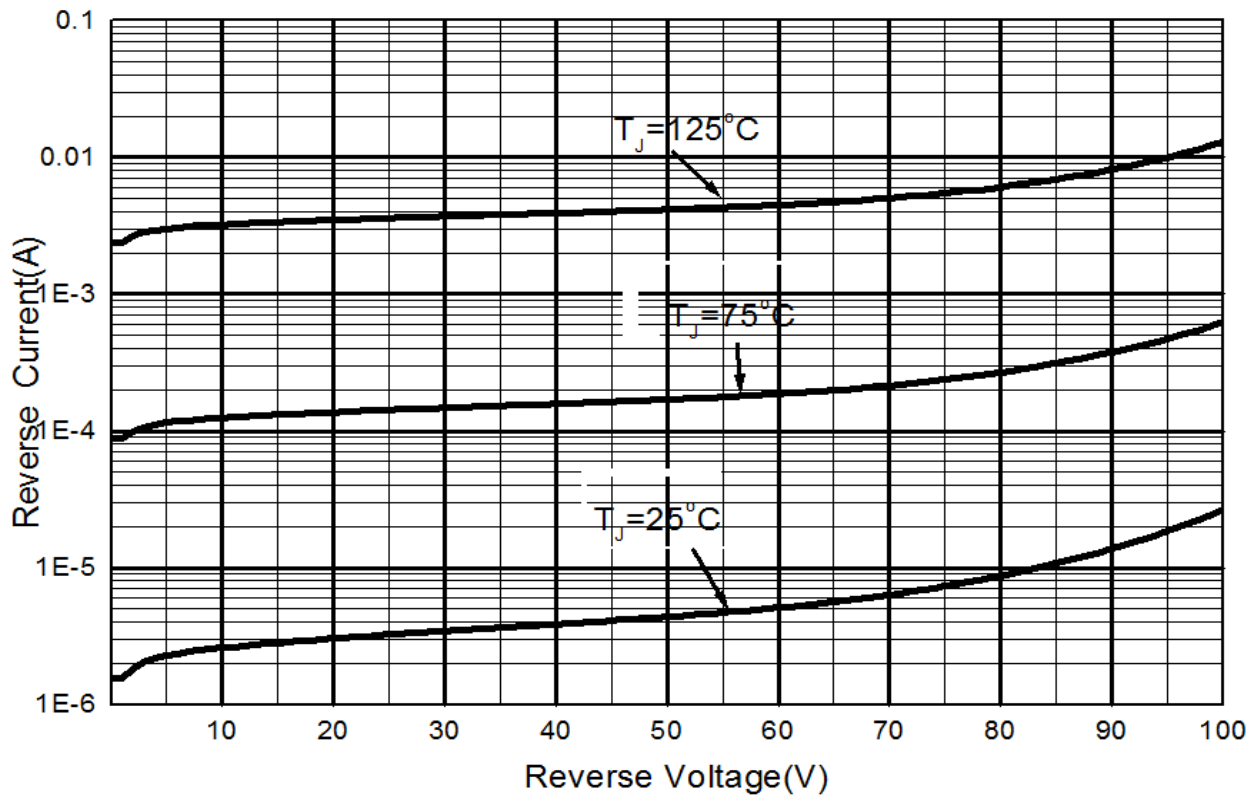
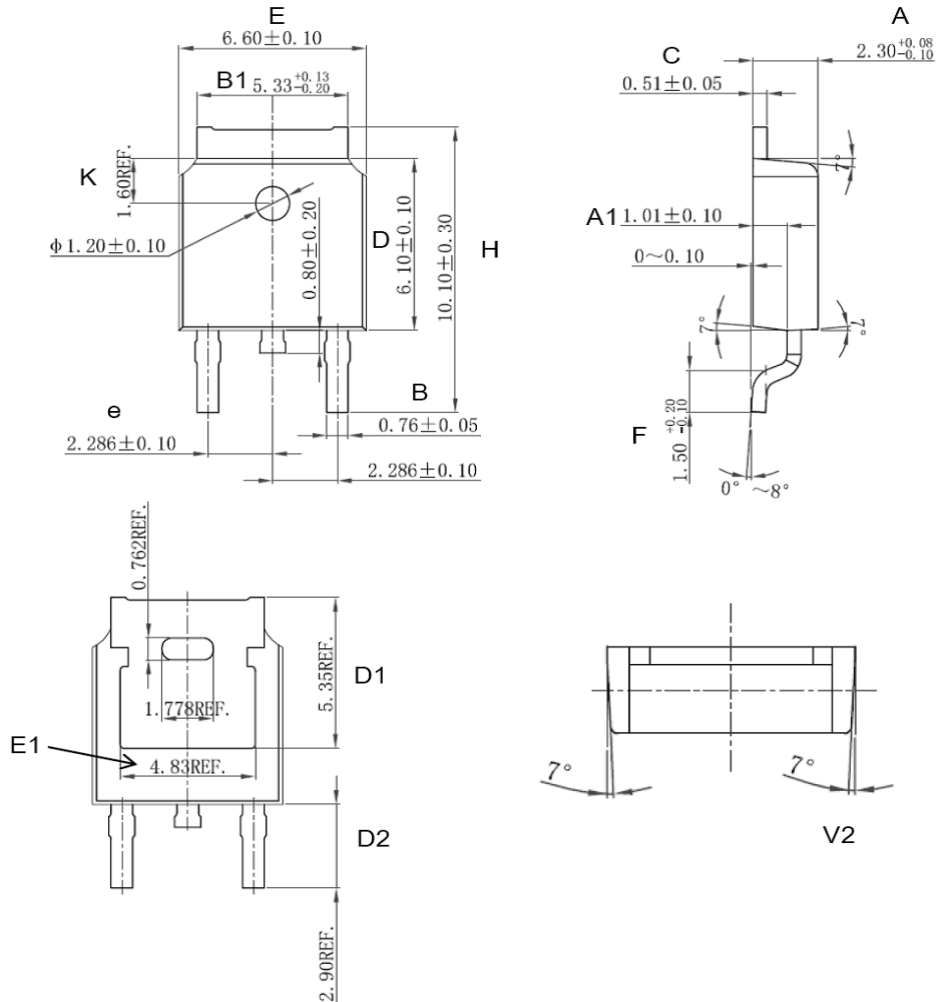


Figure 3: Typical Reverse Characteristics

Mechanical Data:

TO-252 PACKAGE OUTLINE DIMENSION



Symbol	Dimension In Millimeters			Dimension In Inches		
	Min	Nom	Max	Min	Nom	Max
A	2.200	2.300	2.380	0.087	0.091	0.094
A1	0.910	1.010	1.110	0.036	0.040	0.044
B	0.710	0.760	0.810	0.028	0.030	0.032
B1	5.130	5.330	5.460	0.202	0.210	0.215
C	0.460	0.510	0.560	0.018	0.020	0.022
D	6.000	6.100	6.200	0.236	0.240	0.244
D1	5.350 (REF)			0.211 (REF)		
D2	2.900 (REF)			0.114 (REF)		
E	6.500	6.600	6.700	0.256	0.260	0.264
E1	4.83 (REF)			0.190 (REF)		
e	2.186	2.286	2.386	0.086	0.090	0.094
H	9.800	10.100	10.400	0.386	0.398	0.409
F	1.400	1.500	1.700	0.055	0.059	0.067
K	1.600 (REF)			0.063 (REF)		
V2	8° (REF)			8° (REF)		

**Ordering and Marking Information**
**Device Marking: SSTS20100D**

**Package (Available)**  
**TO-252**  
**Operating Temperature Range**  
**C : -55 to 150 °C**

**Devices per Unit**
**Option1:**

Package Type	Units/Tape	Tapes/Inner Box	Units/Inner Box	Inner Boxes/Carton Box	Units/Carton Box
TO-252	2500	2	5000	7	35000

**Option2:**

Package Type	Units/Tape	Tapes/Inner Box	Units/Inner Box	Inner Boxes/Carton Box	Units/Carton Box
TO-252	2500	1	2500	10	25000

**Reliability Test Program**

Test Item	Conditions	Duration	Sample Size
High Temperature Reverse Bias(HTRB)	Tj=125°C to 150°C @ 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**