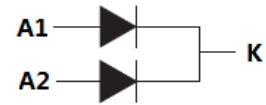


Main Product Characteristics:

IF	2*5A
VRRM	45V
Tj(max)	150°C
Vf(max)	0.55V



TO252
SSBD1045CTL



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 _{RRM}	Peak Repetitive Reverse Voltage	45	V
V _{R(RMS)}	RMS Reverse Voltage	31	V
I _{F(AV)}	Average Forward Current	Per diode	5
		Per device	10
I _{FSM}	Non Repetitive Surge Forward Current(tp=8.3ms sinusoidal)	120	A
I _{R(RM)}	Peak Repetitive Reverse Surge Current(Tp=2us)	2	A
T _J	Maximum operation Junction Temperature Range	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

Thermal Resistance

Symbol	Characterizes	Value	Unit
R _{θJC}	Maximum Thermal Resistance Junction To Case (per leg)	2	°C/W

Electrical Characterizes @T_A=25°C unless otherwise specified

Symbol	Characterizes	Min	Typ	Max	Unit	Test Condition
V _R	Reverse Breakdown Voltage	45			V	I _R =0.5mA
V _F	Forward Voltage Drop			0.55	V	I _F =5A, T _J =25°C
				0.53		I _F =5A, T _J =125°C
I _R	Leakage Current			0.2	mA	V _R =45V, T _J =25°C
				50		V _R =45V, T _J =125°C

I-V Curves:

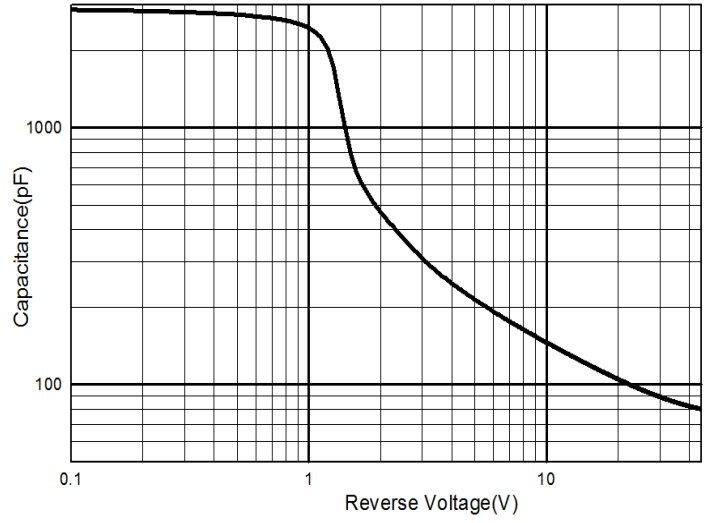
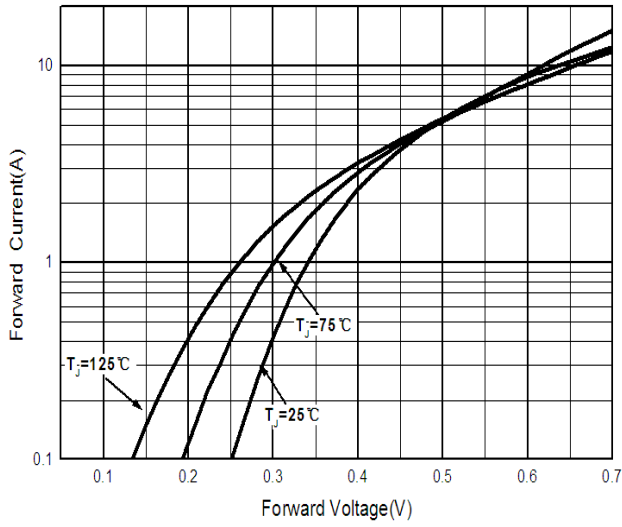


Figure 1: Typical Forward Characteristics

Figure 2: Typical Capacitance Characteristics

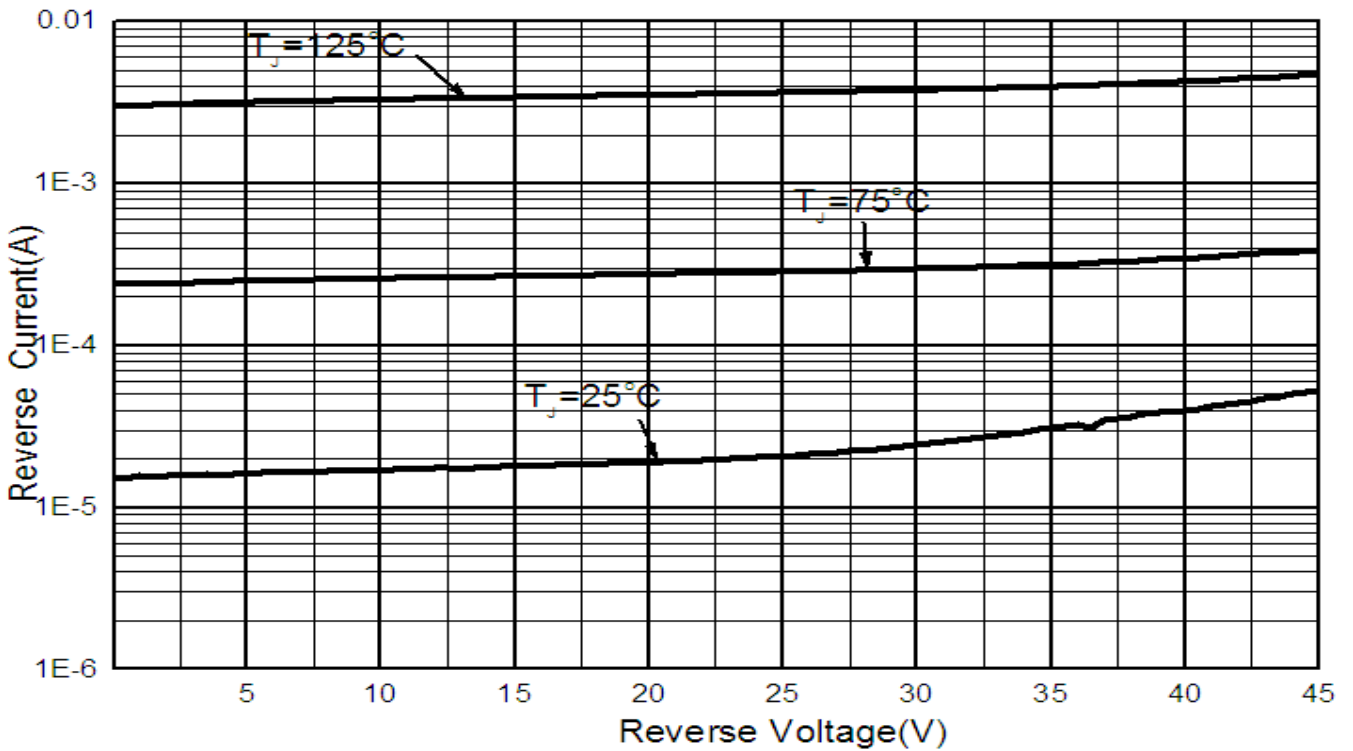
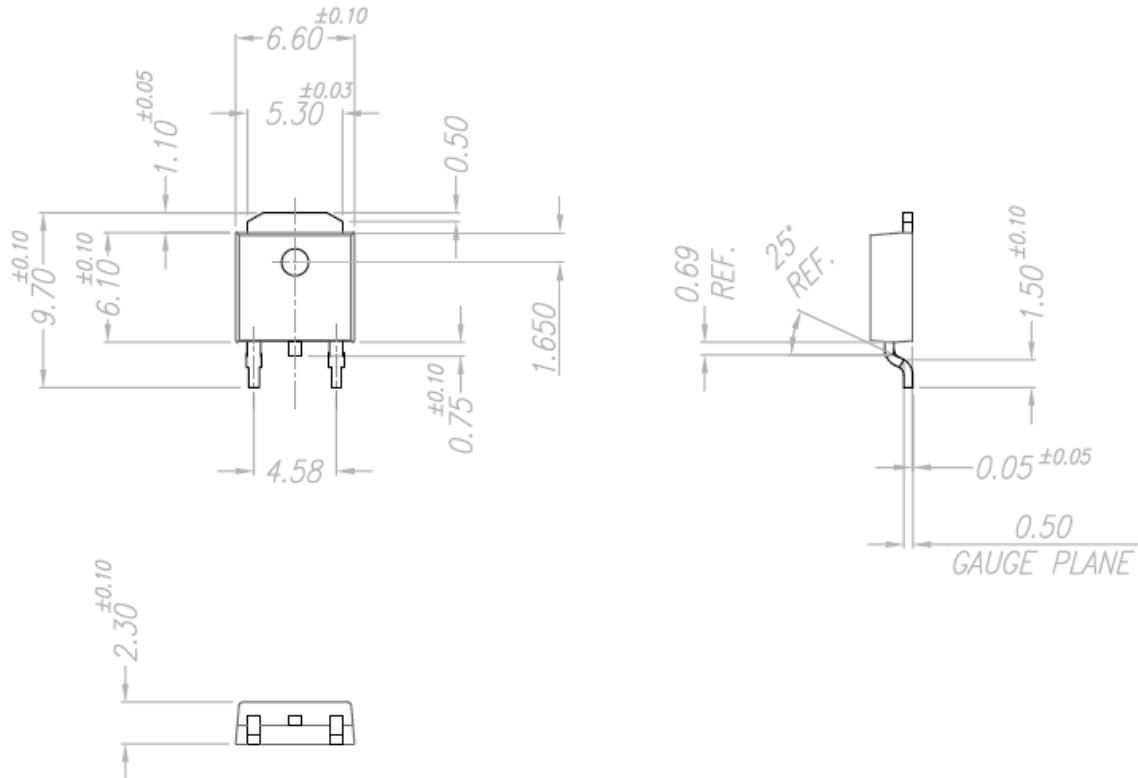


Figure 3: Typical Reverse Characteristics

Mechanical Data:
TO252:


Symbol	Dimension In Millimeters		Dimension In Inches	
	Min	Max	Min	Max
A	2.200	2.400	0.087	0.094
B2	5.270	5.330	0.207	0.210
C	0.450	0.600	0.018	0.024
D	6.000	6.200	0.236	0.244
E	6.500	6.700	0.256	0.264
e	2.290		0.090	
G	4.580		0.180	
H	9.600	9.800	0.378	0.386
L2	1.050	1.150	0.041	0.045
F	1.400	1.600	0.055	0.063
K	0.650	0.850	0.026	0.033

Ordering and Marking Information
Device Marking: SSBD1045CTL

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

Devices per Unit

Package Type	Units/Tube	Tubes/Inner Box	Units/Inner Box	Inner Boxes/Carton Box	Units/Carton Box
TO252	80	50	4000	10	40000

Reliability Test Program

Test Item	Conditions	Duration	Sample Size
High Temperature Reverse Bias(HTRB)	T_j=125°C to 175°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**