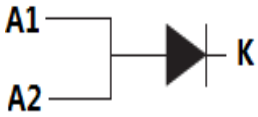
Main Product Characteristics:

IF	5A
VRRM	150V
T_j(max)	150℃
Vf(max)	0.8V

TO263

SSBD5L150A



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	150	V
$V_{R(RMS)}$	RMS Reverse Voltage	105	V
$I_{F(AV)}$	Average Forward Current	5	A
I_{FSM}	Non Repetitive Surge Forward Current(tp=8.3ms sinusoidal)	150	A
I_{RRM}	Peak Repetitive Reverse Surge Current(Tp=2us)	2	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)	TO263	2	℃/W

Electrical Characterizes @T_A=25℃ unless otherwise specified

Symbol	Characterizes	Min	Typ	Max	Unit	Test Condition
V_R	Reverse Breakdown Voltage	150			V	I_R=0.5mA
V_F	Forward Voltage Drop			0.8	V	I_F=5A, T_J=25℃
				0.7		I_F=5A, T_J=125℃
I_R	Leakage Current			0.1	mA	V_R=150V, T_J=25℃
				10		V_R=150V, T_J=125℃

I-V Curves:

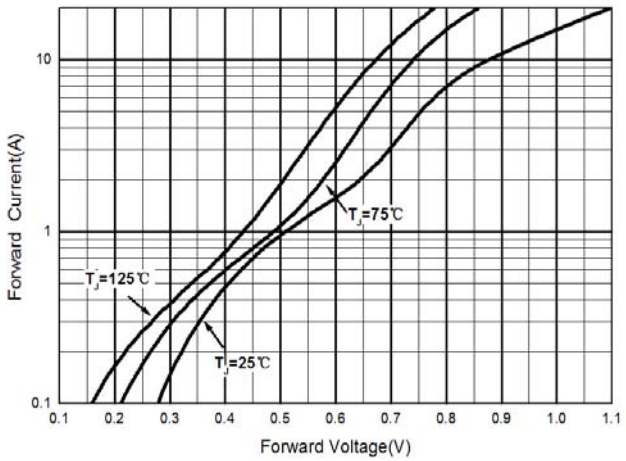


Figure 1：Typical Forward Characteristics

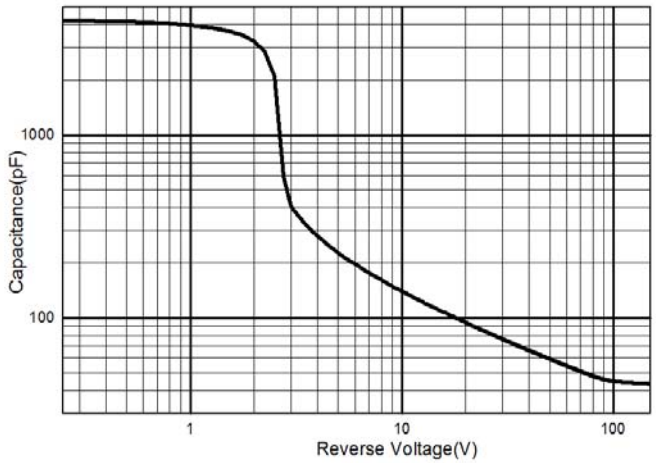


Figure 2：Typical Capacitance Characteristics

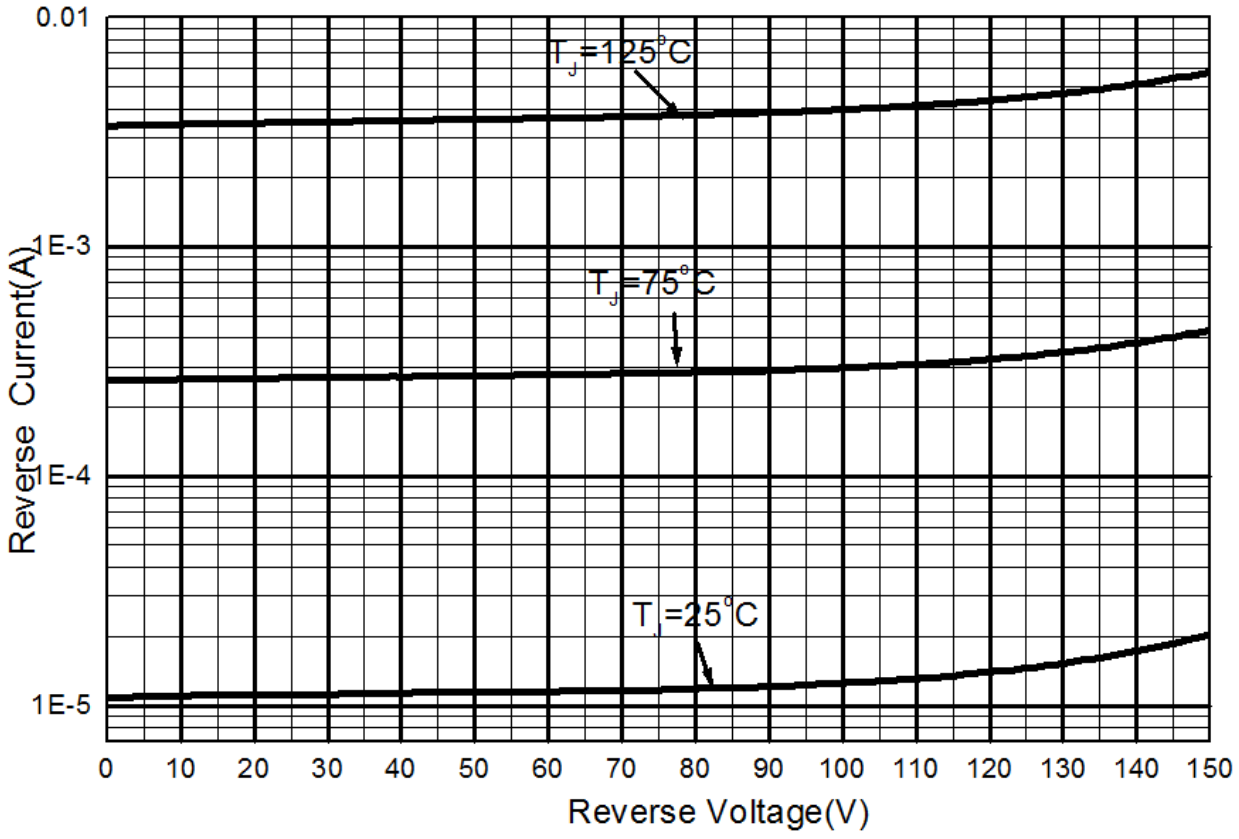
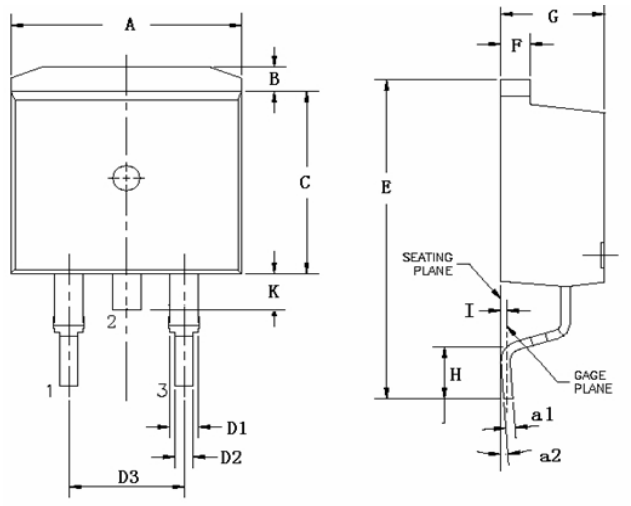


Figure 3：Typical Reverse Characteristics

Mechanical Data：

TO263:



Symbol	Dimension In Millimeters		Dimension In Inches	
	Min	Max	Min	Max
A	9.660	10.280	0.380	0.405
B	1.020	1.320	0.040	0.052
C	8.590	9.400	0.338	0.370
D1	1.140	1.400	0.045	0.055
D2	0.700	0.950	0.028	0.037
D3	5.080 (TYP)		0.200 (TYP)	
E	15.090	15.390	0.594	0.606
F	1.150	1.400	0.045	0.055
G	4.300	4.700	0.169	0.185
H	2.290	2.790	0.090	0.110
I	0.250 (TYP)		0.010 (TYP)	
K	1.300	1.600	0.051	0.063
a1	0.450	0.650	0.018	0.026
a2	0^0	80	1^0	8^0

Ordering and Marking Information

Device Marking: SSBD5L150A

Package (Available)
TO263
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
TO263	50	20	1000	6	6000

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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