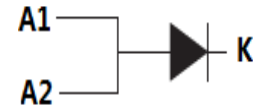


**Main Product Characteristics:**

IF	5A
VRRM	300V
Tj(max)	150°C
Vf(max)	0.85V



TO263  
SSBD5L300A



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 mode 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
VRRM	Peak Repetitive Reverse Voltage	300	V
VR(RMS)	RMS Reverse Voltage	210	V
IF(AV)	Average Forward Current	5	A
IFSM	Non Repetitive Surge Forward Current(tp=8.3ms sinusoidal)	150	A
IRRM	Peak Repetitive Reverse Surge Current(Tp=2us)	2	A
TJ	Maximum operation Junction Temperature Range	-55~150	°C
Tstg	Storage Temperature Range	-55~150	°C

**Thermal Resistance**

Symbol	Characterizes	Value	Unit
RθJC	Maximum Thermal Resistance Junction To Case (per leg)	TO263 2	°C/W

**Electrical Characterizes @TA=25°C unless otherwise specified**

Symbol	Characterizes	Min	Typ	Max	Unit	Test Condition
VR	Reverse Breakdown Voltage	300			V	IR=0.5mA
VF	Forward Voltage Drop			0.85	V	IF=5A, TJ=25°C
				0.7		IF=5A, TJ=125°C
IR	Leakage Current			0.1	mA	VR=300V, TJ=25°C
				10		VR=300V, TJ=125°C

I-V Curves:

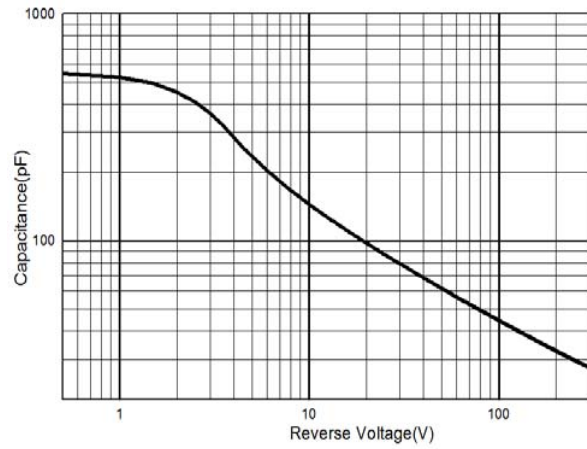
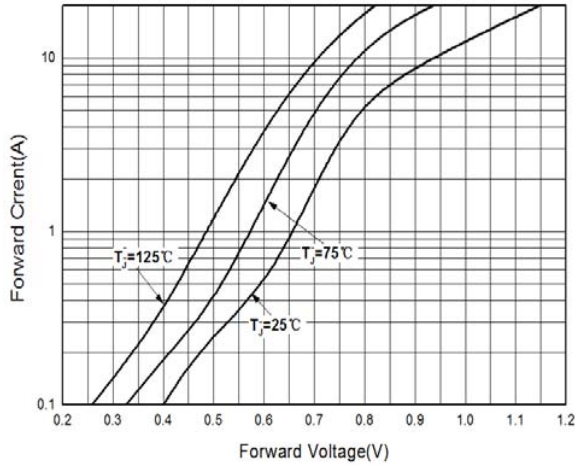


Figure 1: Typical Forward Characteristics      Figure 2: Typical Capacitance Characteristics

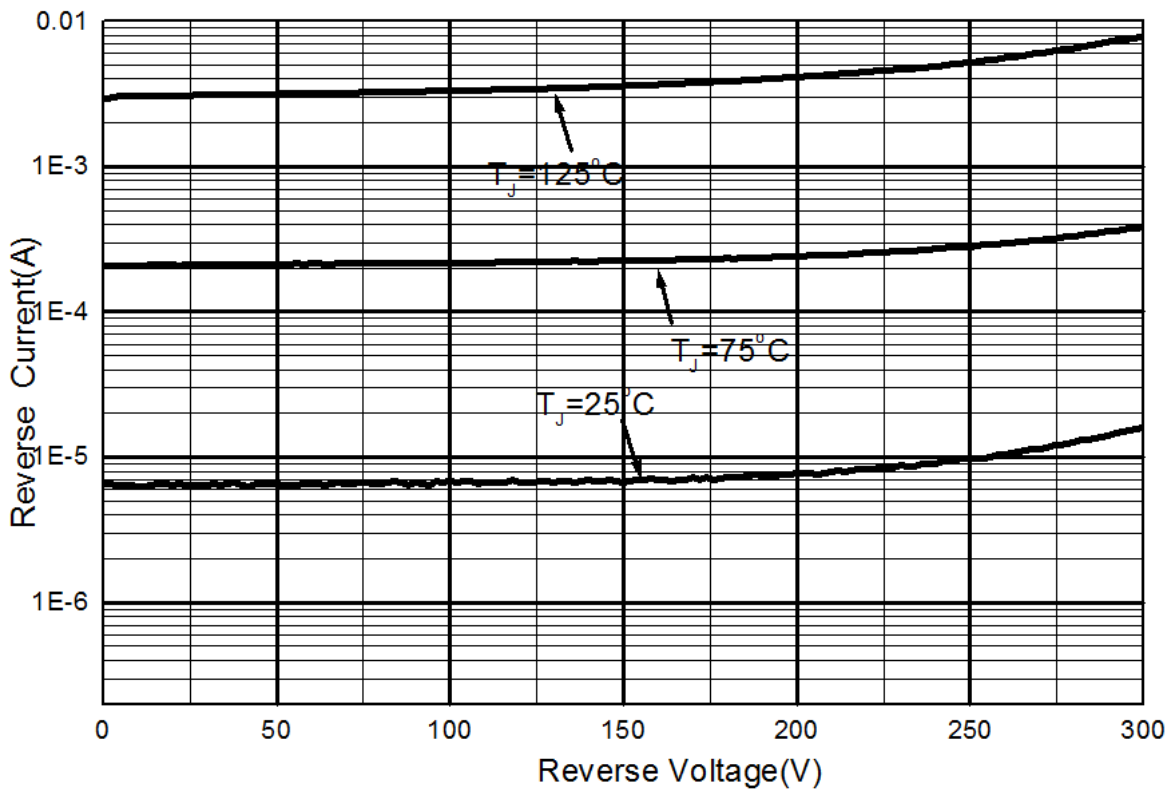
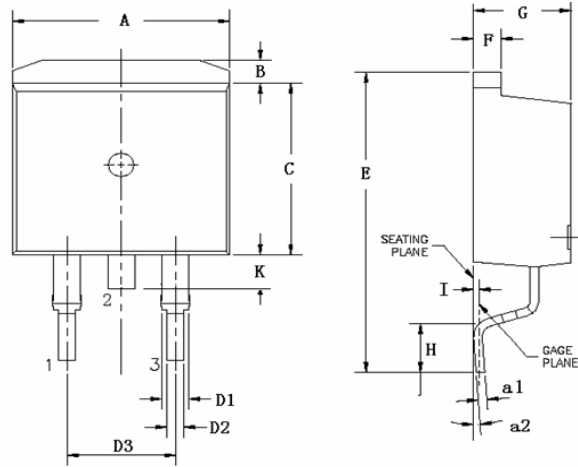


Figure 3: Typical Reverse Characteristics

**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°	80	1°	8°

**Ordering and Marking Information**

**Device Marking: SSBD5L300A**

**Package (Available)  
TO263**

**Operating Temperature Range  
C : -55 to 150 °C**

**Devices per Unit**

<b>Package Type</b>	<b>Units/Tube</b>	<b>Tubes/Inner Box</b>	<b>Units/Inner Box</b>	<b>Inner Boxes/Carton Box</b>	<b>Units/Carton Box</b>
<b>TO263</b>	50	20	1000	6	6000

**Reliability Test Program**

<b>Test Item</b>	<b>Conditions</b>	<b>Duration</b>	<b>Sample Size</b>
<b>High Temperature Reverse Bias(HTRB)</b>	<b>T<sub>j</sub>=125°C to 175°C @ 80% of Max VDSS/VCES/VR</b>	<b>168 hours 500 hours 1000 hours</b>	<b>3 lots x 77 devices</b>

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