

SSCSB16D2

Schottky Barrier Diode

- **Features**

- ❖ Small Surface Mounting Type
- ❖ Ideal for Automated Placement
- ❖ Ultrafast Reverse Recovery Time
- ❖ Low Power Loss, High Efficiency
- ❖ Low Forward Voltage Drop
- ❖ High Current Capability
- ❖ RoHS Compliant
- ❖ Moisture Sensitivity: Level 3 per J-STD-020

- **PIN configuration**



SOD-323



Circuit Diagram

- **Applications**

- ❖ Low Voltage
- ❖ High-Frequency Inverters
- ❖ Free Wheeling
- ❖ Switching circuit



Marking(Top View)

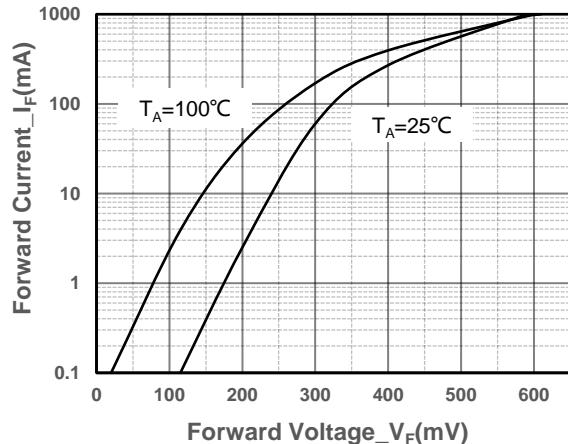
- **Absolute maximum rating @ $T_A=25^\circ\text{C}$**

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	60	V
RMS Voltage	V_{RMS}	42	V
DC Blocking Voltage	V_{DC}	60	V
Average Rectified Output Current	I_o	1	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	I_{FSM}	10	A
Power Dissipation	P_D	250	mW
Typical thermal resistance	$R_{\theta JA}$	400	$^\circ\text{C}/\text{W}$
Operating Temperature	T_J	-40 ~ +125	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^\circ\text{C}$

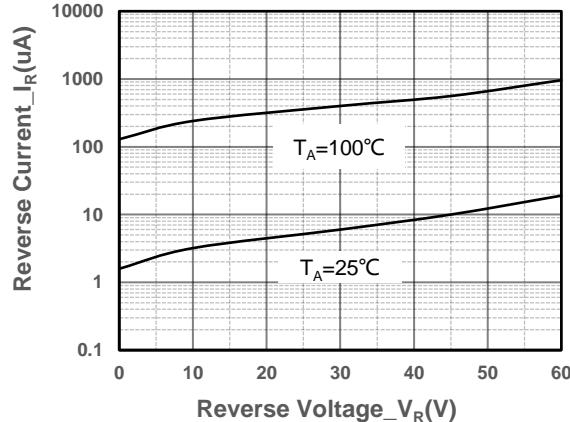
- **Electrical Characteristics @ $T_A=25^\circ\text{C}$**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Breakdown voltage	$V_{(\text{BR})R}$	$I_R = 0.1\text{mA}$	60			V
Reverse Leakage Current	I_R	$V_R = 60\text{V}$			100	μA
Forward Voltage	V_F	$I_F = 1\text{A}$			0.7	V
Total Capacitance	C_T	$V_R = 4\text{V}, f = 1\text{MHz}$			120	pF

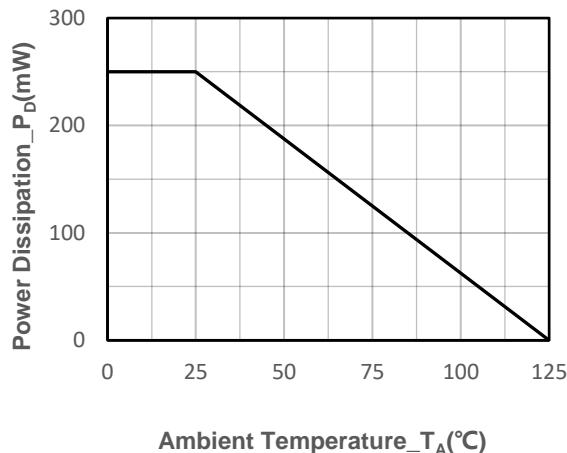
- **Typical Performance Characteristics**



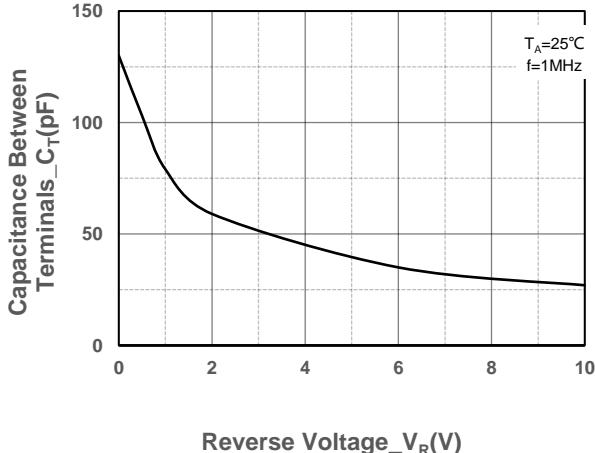
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Capacitance Characteristics vs. Reverse

- Package Information**

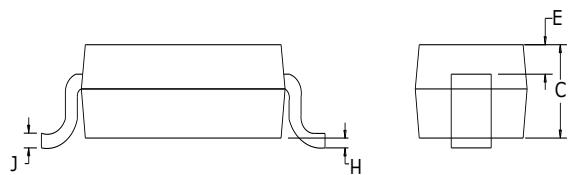
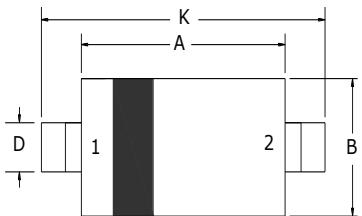
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCSB16D2	SOD-323	SM	3000	7 Inch

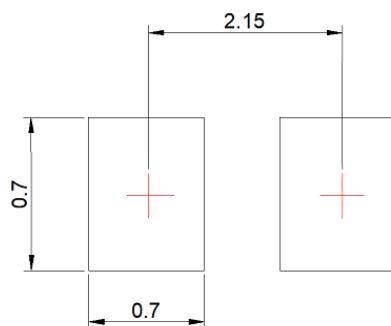
Mechanical Data

Case: SOD-323

Case Material: Molded Plastic. UL Flammability



Dim	Millimeters	
	Min	Max
A	1.60	1.80
B	1.2	1.40
C	0.80	0.90
D	0.25	0.35
E	0.15REF	
H	0	0.10
J	0.08	0.15
K	2.50	2.70

Recommended Pad outline (Unit:mm)


**DISCLAIMER**

AFSEMI RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. AFSEMI DOES NOT ASSUME ANY LIABILITY ARISING OUT OF THE APPLICATION OR USE OF ANY PRODUCT OR CIRCUIT DESCRIBED HEREIN; NEITHER DOES IT CONVEY ANY LICENCE UNDER ITS PATENT RIGHTS, NOR THE RIGHTS OF OTHERS.

THE GRAPHS PROVIDED IN THIS DOCUMENT ARE STATISTICAL SUMMARIES BASED ON A LIMITED NUMBER OF SAMPLES AND ARE PROVIDED FOR INFORMATIONAL PURPOSE ONLY. THE PERFORMANCE CHARACTERISTICS LISTED IN THEM ARE NOT TESTED OR GUARANTEED. IN SOME GRAPHS, THE DATA PRESENTED MAY BE OUTSIDE THE SPECIFIED OPERATING RANGE (E.G., OUTSIDE SPECIFIED POWER SUPPLY RANGE) AND THEREFORE OUTSIDE THE WARRANTED RANGE.