

SSCS551V40D2

Schottky Barrier Diode

- **Features**

- ❖ Low Forward Voltage Drop (VF)
- ❖ Better Efficiency and Cooler Operation
- ❖ Guard Ring Construction for Transient Protection

- **PIN configuration**



SOD-323

- **Applications**

- ❖ Low Voltage Rectification
- ❖ High-Efficiency DC-DC Conversion
- ❖ Switch Mode Power Supply
- ❖ Inverse Polarity Protection



Circuit Diagram



Marking(Top View)

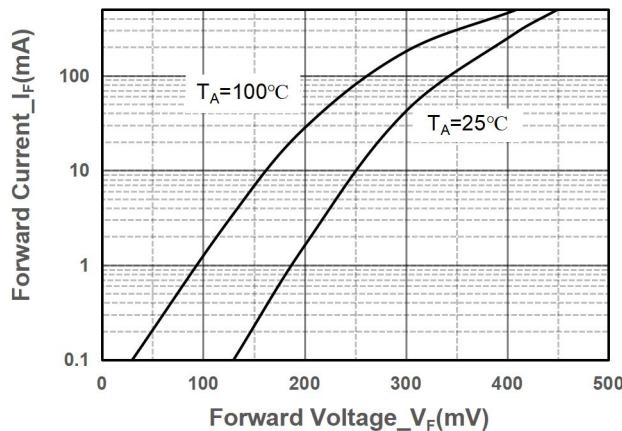
- **Absolute maximum rating @ $T_A=25^\circ C$**

Parameter	Symbol	Value	Unit
Peak Reverse Voltage	V_{RM}	40	V
Average Rectified Output Current	I_o	0.5	A
Non-repetitive Peak Forward Surge Current @ $t=8.3ms$	I_{FSM}	2	A
Power Dissipation	P_D	200	mW
Typical thermal resistance	$R_{\theta JA}$	500	°C/W
Operating Temperature	T_J	-40 ~ +125	°C
Storage Temperature	T_{STG}	-55~ +150	°C

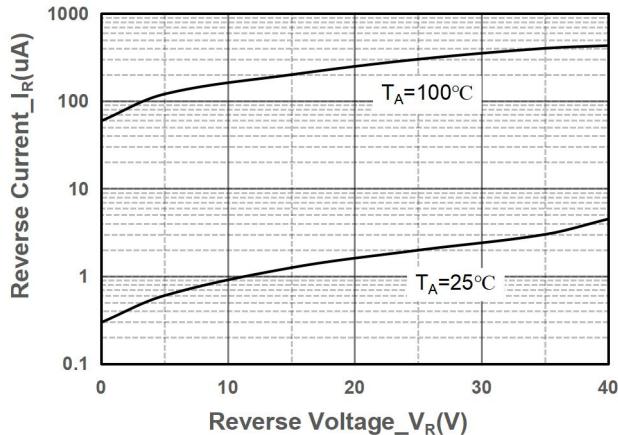
- **Electrical Characteristics @ $T_A=25^\circ C$**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse voltage	$V_{(BR)}$	$I_R=0.1mA$	40			V
Forward Voltage	V_F	$I_F = 500mA$			0.47	V
Reverse Current	I_R	$V_R = 40V$			100	μA

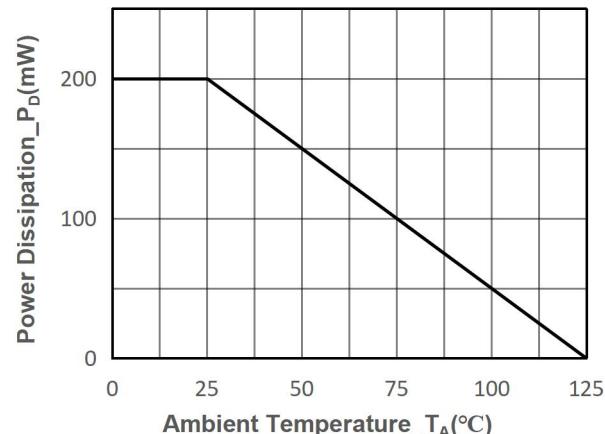
- **Typical Performance Characteristics**



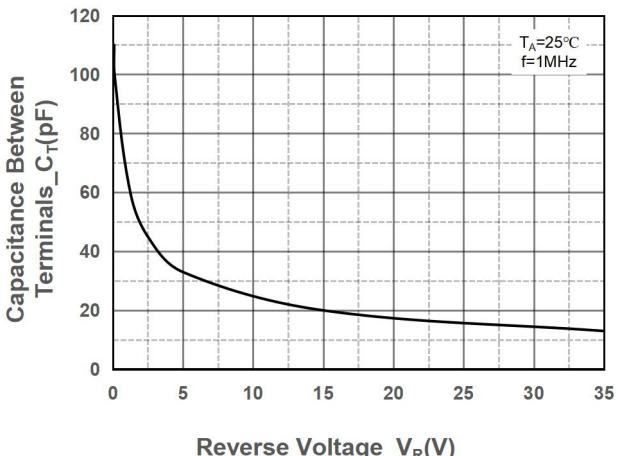
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Capacitance Characteristics vs. Reverse

- Package Information**

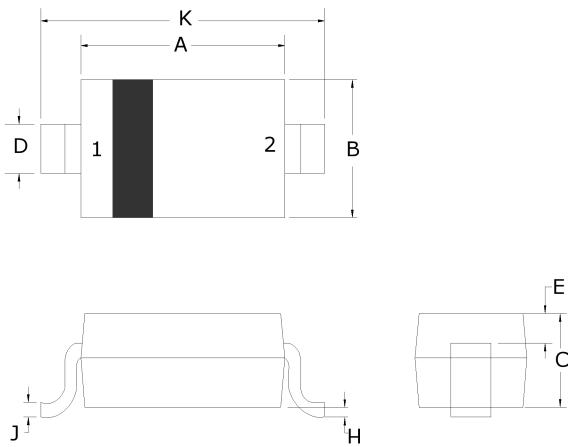
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCS551V40D2	SOD-323	D4	3000	7 Inch

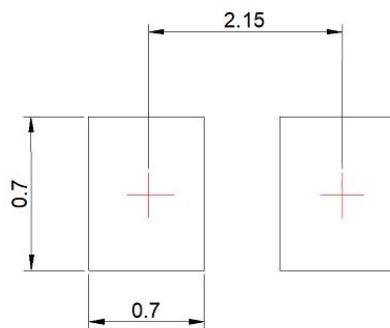
Mechanical Data

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**

SSCSEMI RESERVES THE RIGHT TO MAKE CHANGES WITHOUT FURTHER NOTICE TO ANY PRODUCTS HEREIN TO IMPROVE RELIABILITY, FUNCTION OR DESIGN. SSCSEMI 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.

OUR PRODUCT SPECIFICATIONS ARE ONLY VALID IF OBTAINED THROUGH THE COMPANY'S OFFICIAL WEBSITE, CRM SYSTEM, OR OUR SALES PERSONNEL CHANNELS. IF CHANGES OR SPECIAL VERSIONS ARE INVOLVED, THEY MUST BE STAMPED WITH A QUALITY SEAL AND MARKED WITH A SPECIAL VERSION NUMBER TO BE VALID.