



SSCSMBR140D2

Schottky Barrier Diode

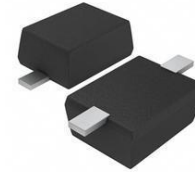
● Features

- ✧ Low reverse current and low forward voltage
- ✧ High reliability
- ✧ Small surface mounting type
- ✧ High temperature soldering guaranteed:
260° C/10 seconds at terminals
- ✧ Plastic package has Underwriters Laboratory
Flammability Classification 94V-0

● Applications

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

● PIN configuration



SOD-323F



Circuit Diagram



Marking (Top View)

● Absolute maximum rating @T_A=25°C

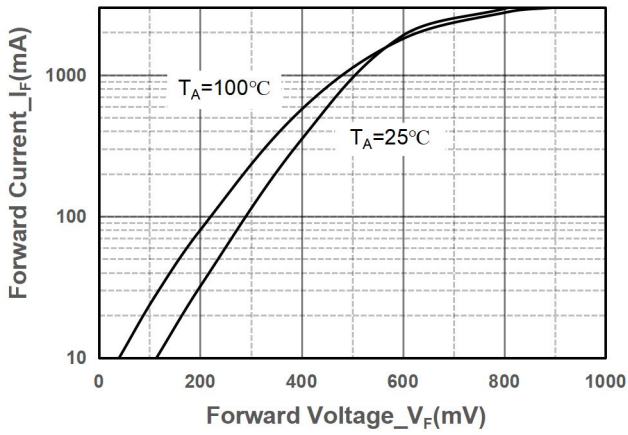
Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Maximum RMS Voltage	V _{RMS}	28	V
Maximum DC Blocking Voltage	V _{DC}	40	V
Maximum Average Forward Rectified Current @T _C = 75°C	I _{F(AV)}	2	A
Non-repetitive Peak Forward Surge Current @t=8.3ms	I _{FSM}	15	A
Typical Thermal Resistance	R _{θJA}	400	°C/W
Operating Temperature	T _J	125	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

● Electrical Characteristics @T_A=25°C

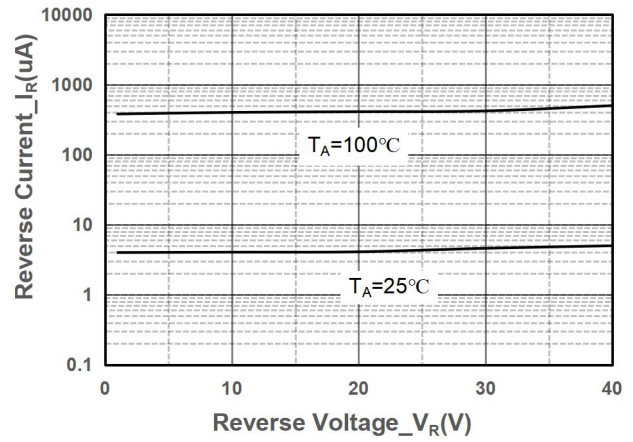
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse Voltage	V _{BR}	I _R = 250μA	40	50		V
Forward Voltage	V _F	I _F = 0.5A		0.42	0.50	V
		I _F = 1.0A		0.48	0.55	
		I _F = 3.0A		0.80	0.90	
Reverse Current	I _R	V _R = 40V		5	50	μA
Diode Capacitance	C _D	V _R = 4V, f = 1MHz		50		pF



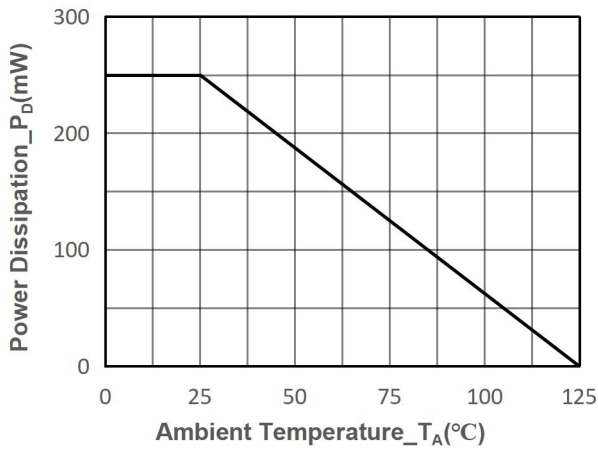
- Typical Performance Characteristics



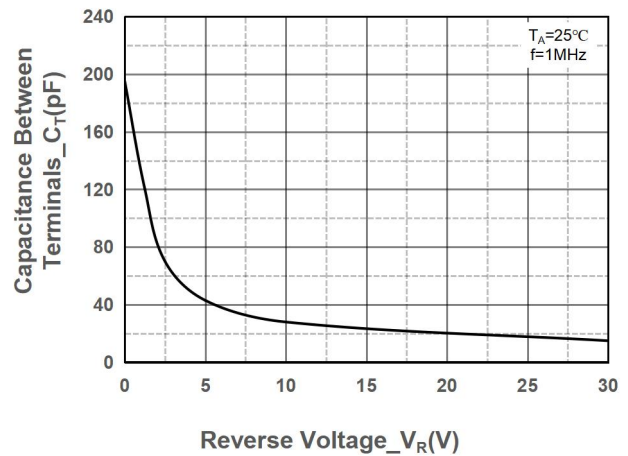
Forward Voltage vs. Forward Current



Reverse Voltage vs. Reverse Current



Power Derating vs. Ambient Temperature



Capacitance vs. Reverse Voltage



SSCSMBR140D2

● Package Information

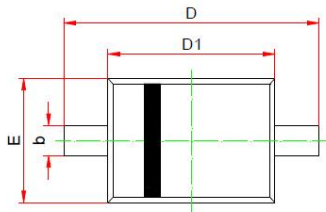
Ordering Information

Device	Package	Marking	Qty per Reel	Reel Size
SSCSMBR140D2	SOD-323F	SL	3000	7 Inch

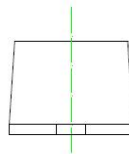
Mechanical Data

Case: SOD-323F

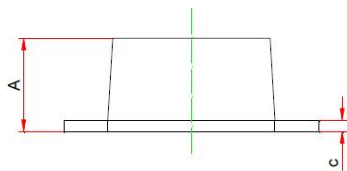
Case Material: Molded Plastic. UL Flammability



TOP VIEW



SIDE VIEW



SIDE VIEW

Dim	Millimeters	
	Min	Max
A	0.80	1.10
b	0.25	0.40
c	0.10	0.15
D	2.30	2.80
D1	1.60	1.80
E	1.15	1.35

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 LICIENCE 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.