

1SS355 SMALL SIGNAL DIODE



Features

- General purpose diodes
- Fast switching devices
- SOD323F Thin SMD package
- This is a Halogen Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Schematic & Pin Configuration



Mechanical Characteristics

- Case: SOD-323F, Molded plastic
- Matte Tin (Sn) Lead finish
- Polarity: Cathode Band
- Weight: 0.004 grams(approx)

Maximum Ratings @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

Characteristic	Symbol	Limits	Unit
Non- Repetitive Peak Reverse Voltage	V_{RM}	90	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	80	V
RMS Reverse Voltage	$V_{R(RMS)}$	64	V
Forward Continuous Current	I_F	225	mA
Average Rectified Output Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current @ $t=1.0\text{s}$	I_{FSM}	0.5	A
Power Dissipation	P_D	200	mW
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Max	Units	Test Condition
Breakdown Voltage	V_{BR}	80	-	V	@ $I_R=100\mu\text{A}$
Forward Voltage*	V_{FM}	-	1.2	V	@ $I_F=100\text{mA}$
Reverse Leakage Current*	I_{RM}	-	0.1	μA	@ $V_R=80\text{V}$
Capacitance	C_T	-	3	pF	$V_R=0.5\text{V}$, $f=1.0\text{MHz}$
Reverse Recovery Time	t_{rr}	-	4	ns	$I_F=10\text{mA}$, $V_R=6\text{V}$, $R_L=100\Omega$

* Pulse width < 300 μs , duty cycle < 2%

Ordering Information

Device	Package	Shipping	Tape wide	Emboss pitch
1SS355	SOD-323F	3000pcs / reel	8mm	4mm

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



T4/ S5 = Marking Code

Ratings and Characteristics Curves

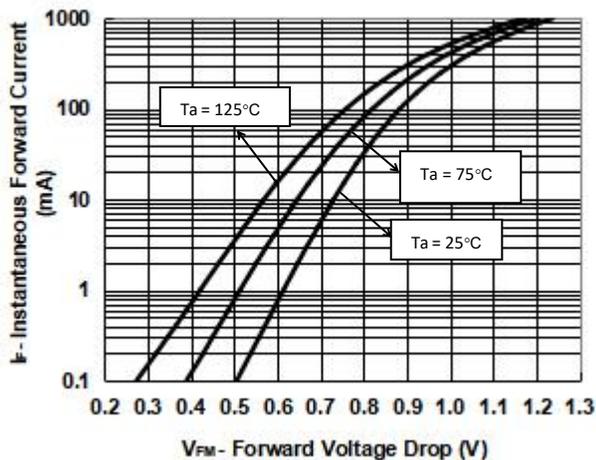


Fig. 1 - Typical Forward Characteristics

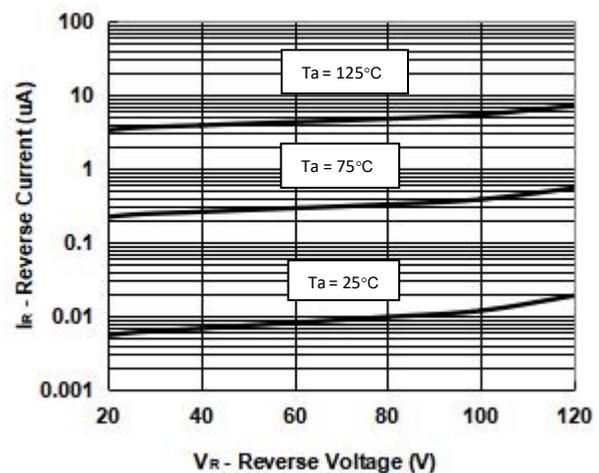


Fig. 2 - Typical Reverse Characteristics

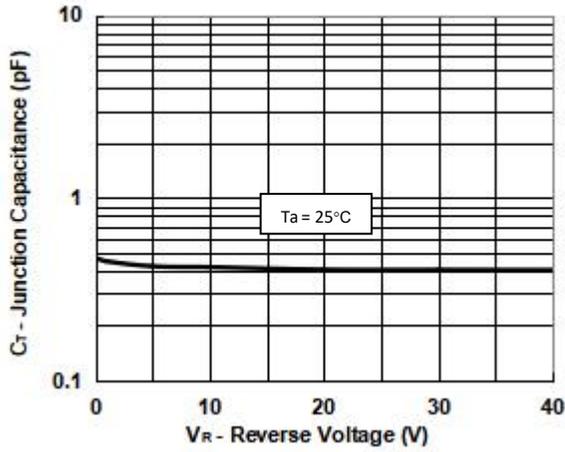


Fig. 3 - Typical Junction Capacitance

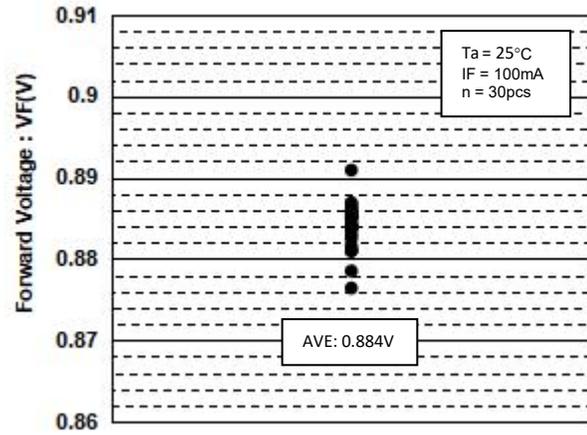


Fig. 4 - VF Dispersion map

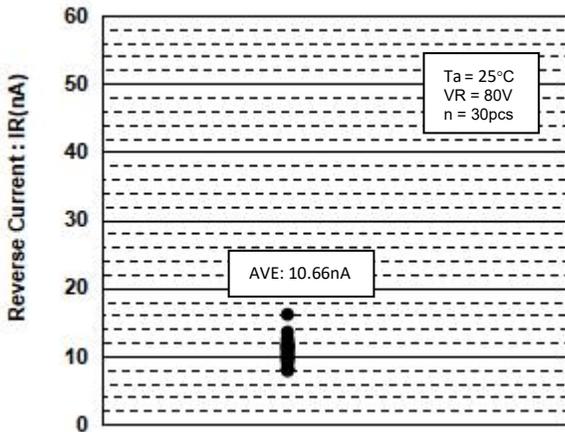


Fig. 5 - IR Dispersion map

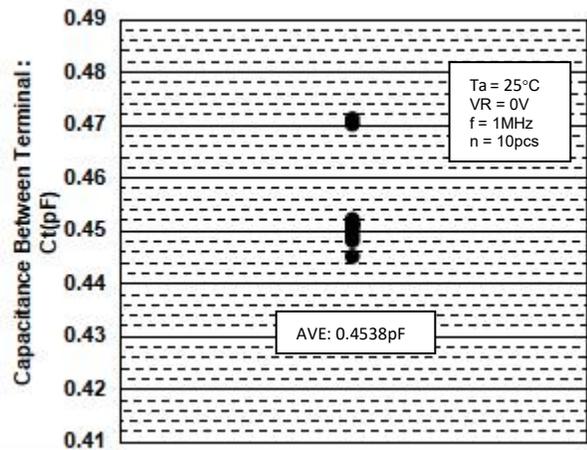
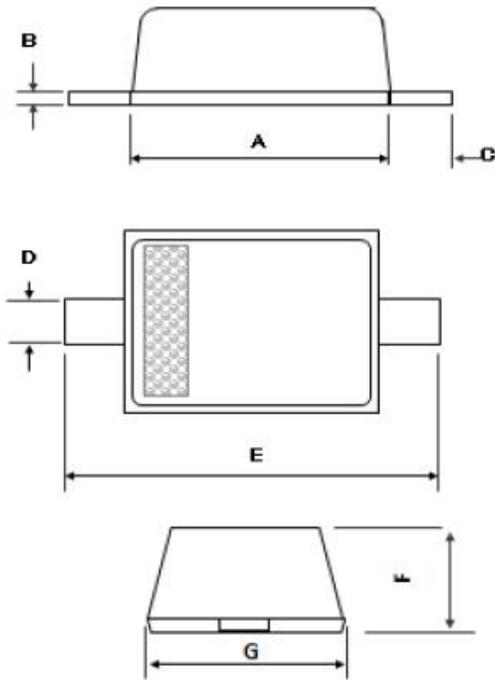


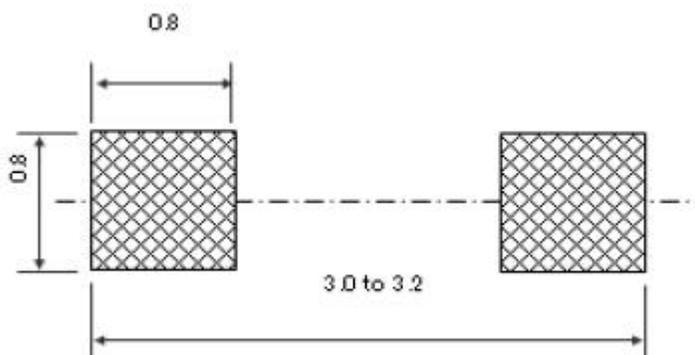
Fig. 6 - Ct Dispersion map

Mechanical Dimensions SOD-323F



SYMBOL	Millimeters	
	Min.	Max.
A	1.60	1.80
B	0.06	0.21
C	0.30	0.50
D	0.25	0.40
E	2.30	2.70
F	0.60	0.75
G	1.15	1.35

Land Pattern Recommendation SOD-323F (Millimeters)



Tolerance: $\pm 0.05\text{mm}$

Technical Data
Data Sheet N2103, Rev. A



DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Diode Solutions sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC Diode Solutions be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Diode Solution assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC Diode Solutions be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC Diode Solutions.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC Diode Solutions.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..