

1SS355F(LS)

SURFACE MOUNT FAST SWITCHING DIODE

REVERSE VOLTAGE – 80 Volts
FORWARD CURRENT – 0.15 Ampere

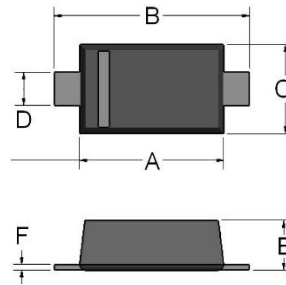
FEATURES

- Fast switching device ($t_{rr} < 4.0\text{ns}$)
- SOD-323F package
- Surface device type mounting
- General Purpose Diodes
- Green Epoxy Molding Compound
- Matte Tin(Sn) Lead Finish
- RoHS compliant
- Band Indicates Cathode
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**
- **Halogen and Antimony Free. "Green" Device (Note 3)**

MECHANICAL DATA

- Polarity: Color band denotes cathode
- Weight Approximate: 0.004g

SOD-323F



SOD-323F		
DIM.	MIN.	MAX.
A	1.60	1.80
B	2.30	2.70
C	1.15	1.35
D	0.25	0.40
E	0.80	1.00
F	0.05	0.25
All Dimensions in millimeter		

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

Characteristic	Symbol	Value	Units
Reverse Voltage	V_R	80	V
Non-Repetitive Peak Forward Current	I_{FM}	250	mA
Average Rectified Output Current	I_O	150	mA
Power Dissipation	P_D	200	mW
Repetitive Peak Reverse Voltage	V_{RM}	90	V
Repetitive Peak Forward Current @ $t=1\mu\text{s}$	I_{FRM}	500	mA
Peak Forward Surge Current	I_{FSM}	2	A
Maximum Operating Temperature	T_J	+150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65~+150	$^\circ\text{C}$

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

Characteristic	Test Condition	Symbol	Value	Unit
Breakdown voltage	$I_R=100\mu\text{A}$	V_B	80	V
Maximum Forward Voltage	$I_F = 100\text{mA}$	V_F	1200	mV
Maximum DC Reverse Current at Rated DC Blocking Voltage	$V_R = 80\text{V}$	I_R	100	nA
Maximum Total Capacitance	$V_R=0.5\text{V}, f=1\text{MHz}$	C_T	4	pF
Maximum Reverse Recovery time	$I_F=10\text{mA}, V_R=6\text{V}$ $R_L=100\Omega$	t_{rr}	4	ns

THERMAL CHARACTERISTICS

Characteristic	Symbol	TYP.	Unit
Typical thermal resistance (Note 4)	R_{thJA}	250	$^\circ\text{C/W}$
	R_{thJC}	110	

Notes:

1. EU Directive 2002/95/EC (RoHS), 2011/65/EU (RoHS 2) & 2015/863/EU (RoHS 3) compliant. All applicable RoHS exemptions applied.
2. See <https://www.diodes.com/quality/lead-free/> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
4. Thermal resistance junction to ambient and case.

RATING AND CHARACTERISTIC CURVES
1SS355F

Figure 1. Power Dissipation vs Ambient Temperature
Valid provided leads at a distance of 0.8mm from case are kept at ambient temperature

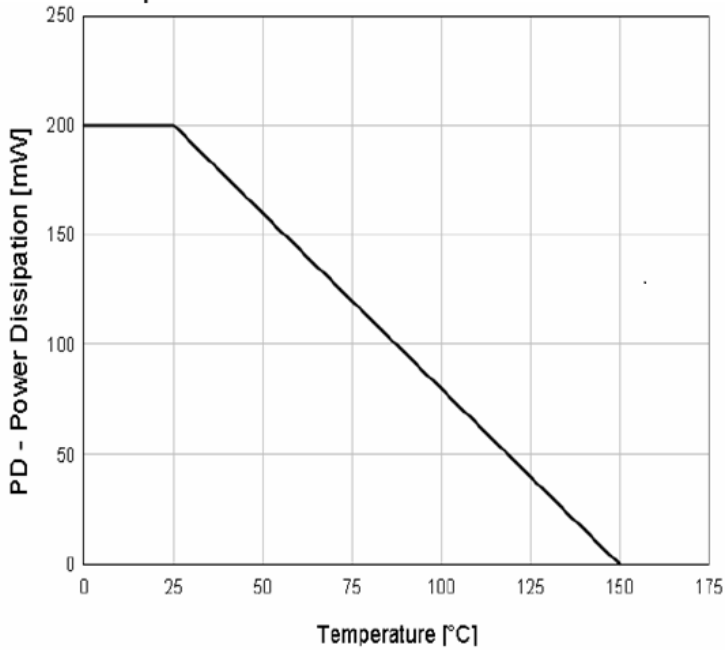


Figure 2. Total Capacitance

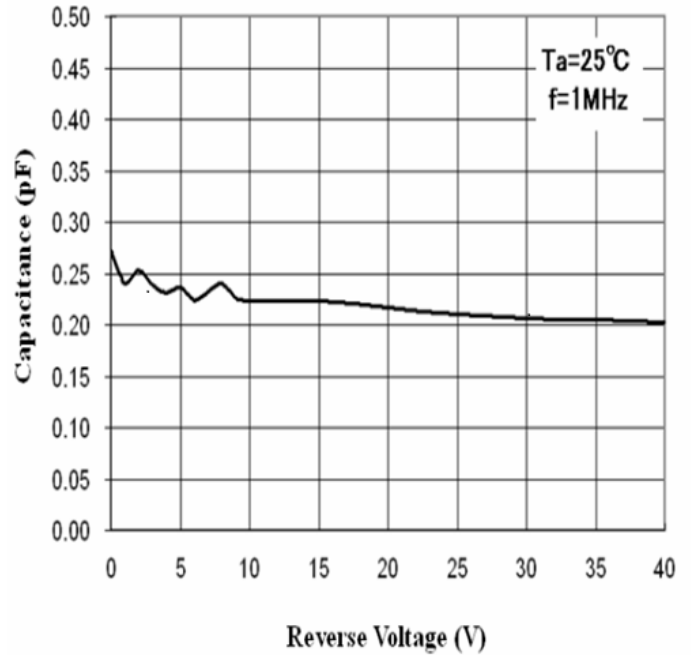


Figure 3. Reverse Voltage vs Reverse Current

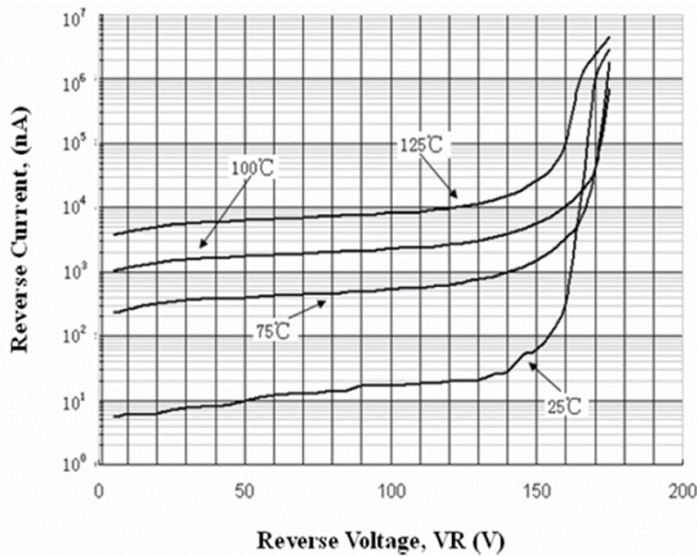
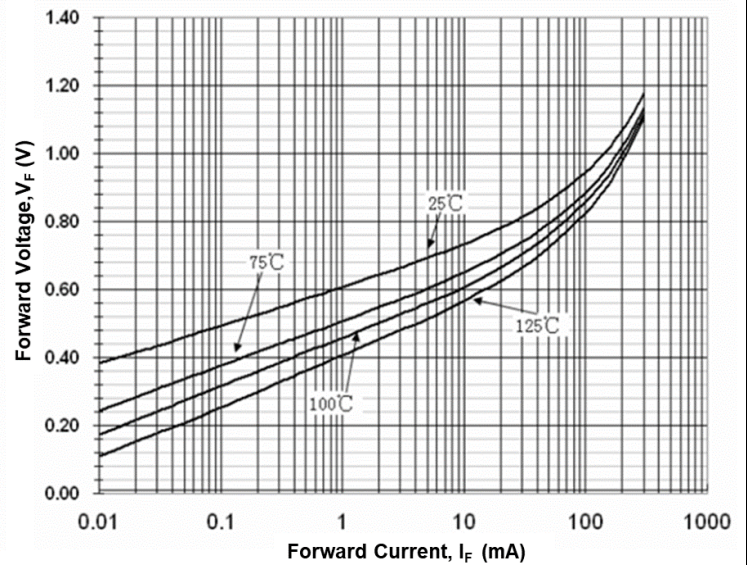


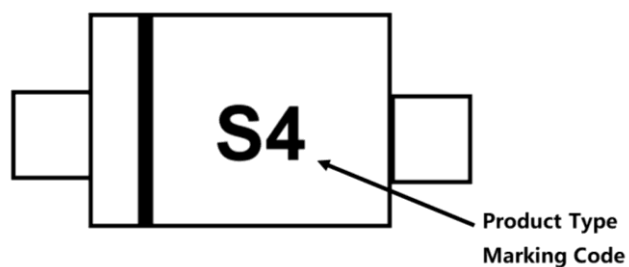
Figure 4. Forward Voltage vs Ambient Temperature



Ordering Information :

Part Number	Package	Packing	
		Qty.	Carrier
1SS355F-7	SOD-323F	3000pcs	Reel

Marking Information :



Device P/N	Marking Code	Equivalent Circuit Diagram
1SS355F	S4	1 ○ — < — ○ 2

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