

250mA, 90V High Speed SMD Switching Diode

FEATURES

- Fast switching device ($t_{rr} < 4.0ns$)
- Surface Mount Device Type
- Matte Tin (Sn) lead finish with Nickel (Ni) underplate
- Moisture sensitivity level: level 1, per J-STD-020
- RoHS Compliant

APPLICATIONS

- Switching mode power supply (SMPS)
- Adapters
- Lighting application
- On-board DC/DC converter

MECHANICAL DATA

- Case: SOD-323F
- Molding compound meets UL 94V-0 flammability rating
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: Indicated by cathode band
- Weight: 4.60mg (approximately)

KEY PARAMETERS		
PARAMETER	VALUE	UNIT
I_F	250	mA
V_{RRM}	90	V
I_{FSM}	500	mA
V_F at $I_F = 100mA$	1.2	V
$T_{JMAX.}$	150	°C
Package	SOD-323F	
Configuration	Single die	


SOD-323F


ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise noted)			
PARAMETER	SYMBOL	1SS355	UNIT
Marking code on the device		S4	
Power dissipation	P_D	200	mW
Repetitive peak reverse voltage	V_{RRM}	90	V
Forward current	I_F	250	mA
Continue forward current	I_O	150	mA
Non-repetitive peak forward current	I_{FSM}	500	mA
	$t = 1s$		
Junction temperature range	T_J	-65 to +150	°C
Storage temperature range	T_{STG}	-65 to +150	°C

ELECTRICAL SPECIFICATIONS ($T_A = 25^\circ\text{C}$ unless otherwise noted)					
PARAMETER	CONDITIONS	SYMBOL	MIN	MAX	UNIT
Forward voltage ⁽¹⁾	$I_F = 100\text{mA}$, $T_J = 25^\circ\text{C}$	V_F	-	1.2	V
Reverse voltage	$I_R = 100\mu\text{A}$, $T_J = 25^\circ\text{C}$	V_R	80	-	V
Reverse current @ rated V_R ⁽²⁾	$V_R = 80\text{V}$, $T_J = 25^\circ\text{C}$	I_R	-	100	nA
Junction capacitance	1MHz, $V_R = 0.5\text{V}$	C_J	-	4	pF
Reverse recovery time	$I_F = 10\text{mA}$, $R_L = 100\Omega$, $V_R = 6\text{V}$	t_{rr}	-	4	ns

Notes:

1. Pulse test with $PW = 0.3\text{ms}$
2. Pulse test with $PW = 30\text{ms}$

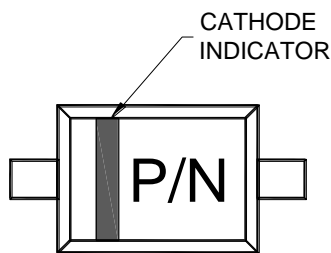
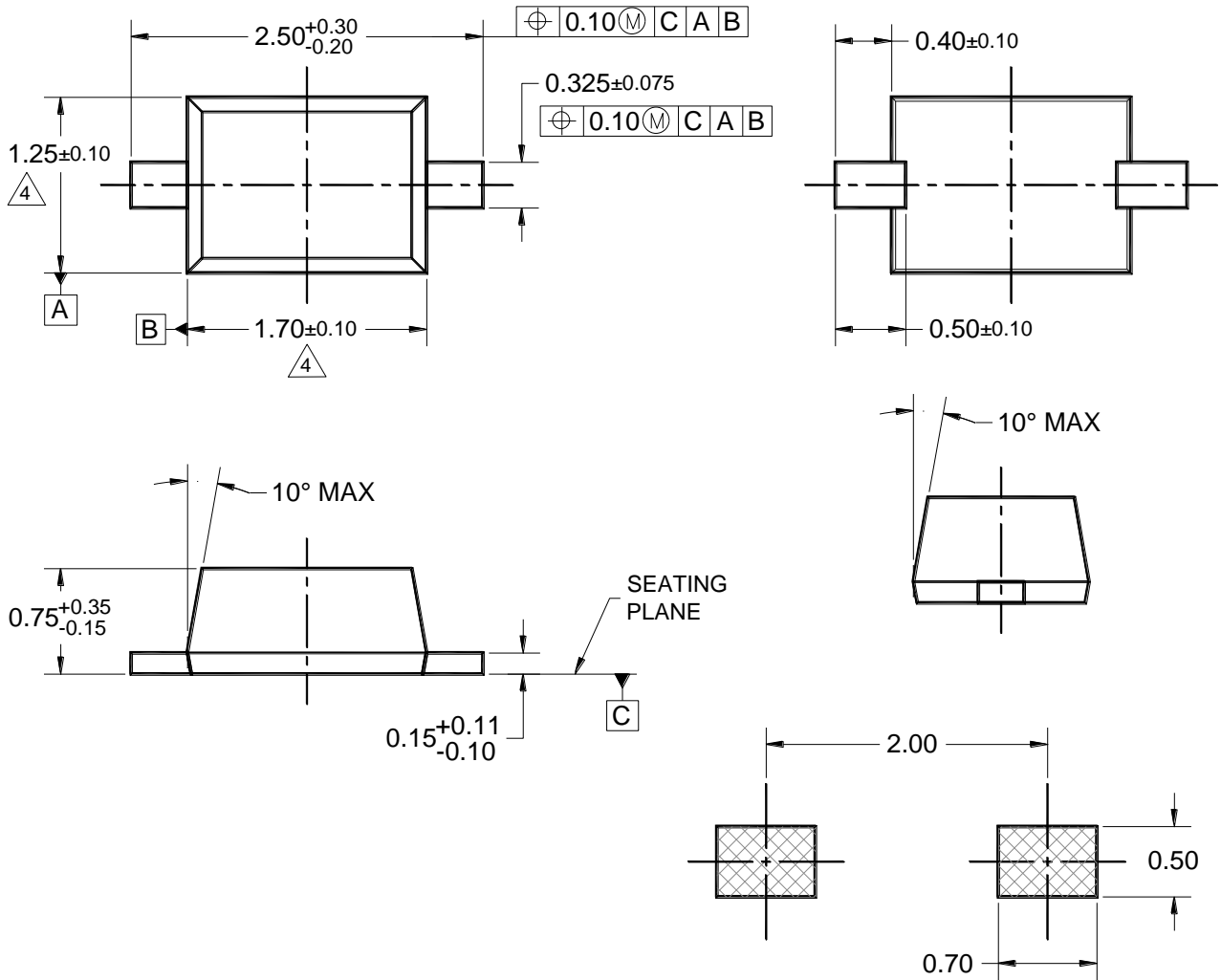
ORDERING INFORMATION		
ORDERING CODE ⁽¹⁾	PACKAGE	PACKING
1SS355 RRG	SOD-323F	3,000 / 7" Tape & Reel
1SS355 RR	SOD-323F	3,000 / 7" Tape & Reel
1SS355 R9G	SOD-323F	10,000 / 13" Tape & Reel
1SS355 R9	SOD-323F	10,000 / 13" Tape & Reel

Notes:

1. "G" means green compound (halogen-free according to IEC 61249-2-21)

PACKAGE OUTLINE DIMENSIONS

SOD-323F



MARKING DIAGRAM

P/N = MARKING CODE

SUGGESTED PAD LAYOUT

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
3. PACKAGE OUTLINE REFERENCE: EIAJ ED-7500A-1, SC-90.

4. MOLDED PLASTIC BODY LATERAL DIMENSIONS DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

5. DWG NO. REF: HQ2SD07-SOD323F-018 REV A.

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