

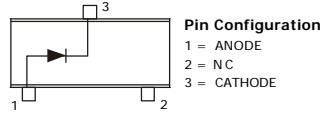
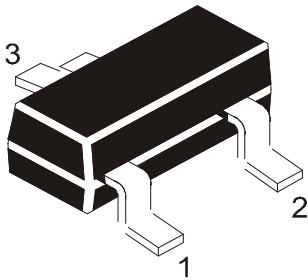


SILICON PLANAR SWITCHING DIODE

BAS16

SOT-23

Formed SMD Package



Marking

BAS16 = A6

High-Speed Switching Diodes

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNIT
Continuous Reverse Voltage	V_R	75	V
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Forward Current (DC)	I_F	215	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non Repetitive Peak Forward Current (Per Crystal)			
$t=1\mu s$	I_{FSM}	4.0	A
$t=1ms$	I_{FSM}	1.0	A
$t=1s$	I_{FSM}	0.5	A
Power Dissipation @ $T_a=25^\circ C$	P_D	0.25	W
Storage Temperature Range	T_{stg}	- 55 to +150	$^\circ C$
Junction Temperature	T_j	150	$^\circ C$

Thermal Resistance

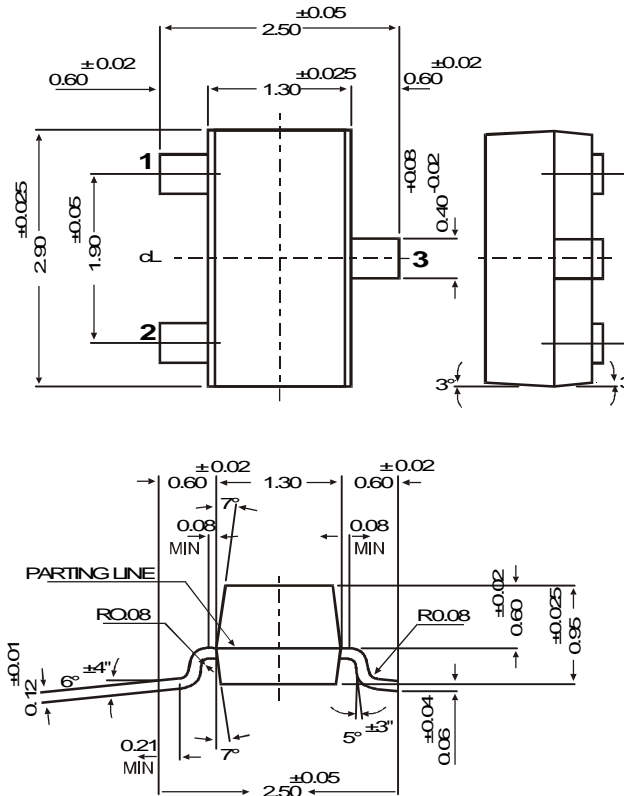
Junction to Ambient in free fair	$R_{th(j-a)}$	500	K/W
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ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$ unless specified otherwise)

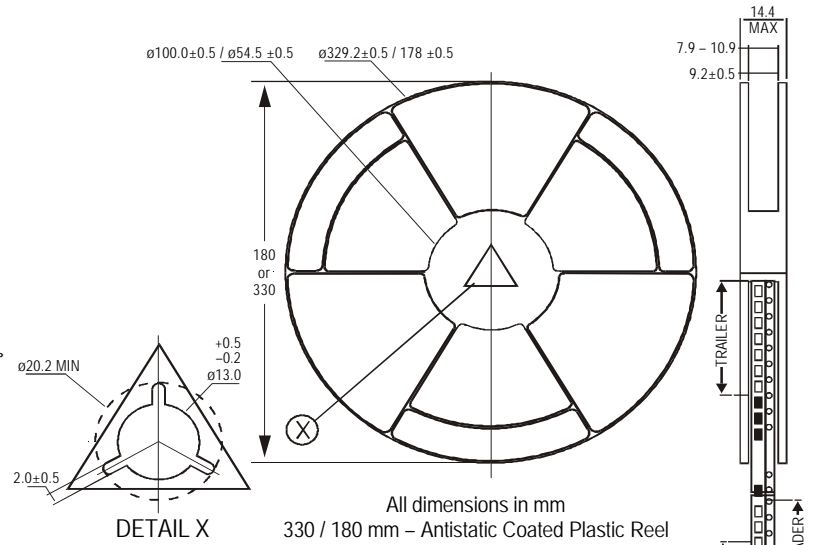
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Forward Voltage	V_F	$I_F = 1\text{ mA}$			0.715	V
		$I_F = 10\text{ mA}$			0.855	V
		$I_F = 50\text{ mA}$			1.0	V
		$I_F = 150\text{ mA}$			1.25	V
Reverse Voltage Leakage Current	I_R	$V_R=25V, T_j=150^\circ C$			30	μA
		$V_R=75V$			1.0	μA
		$V_R=75V, T_j=150^\circ C$			50	μA
Diode Capacitance	C_d	$V_R=0V, f=1MHz$			2.0	pF
Forward Recovery Voltage When Switched to	V_{fr}	$I_F=10mA, t_p=20ns$			1.75	V
Reverse Recovery Time When Switched from	t_{rr}	$I_F=10mA$ to $I_R=60mA, R_L=100\ \Omega$, measured at $I_R=1mA$			4.0	ns
Recovery Charge When Switched from	Q_S	$I_F=10mA$ to $V_R=5V, R_L=100\ \Omega$,			45	pC

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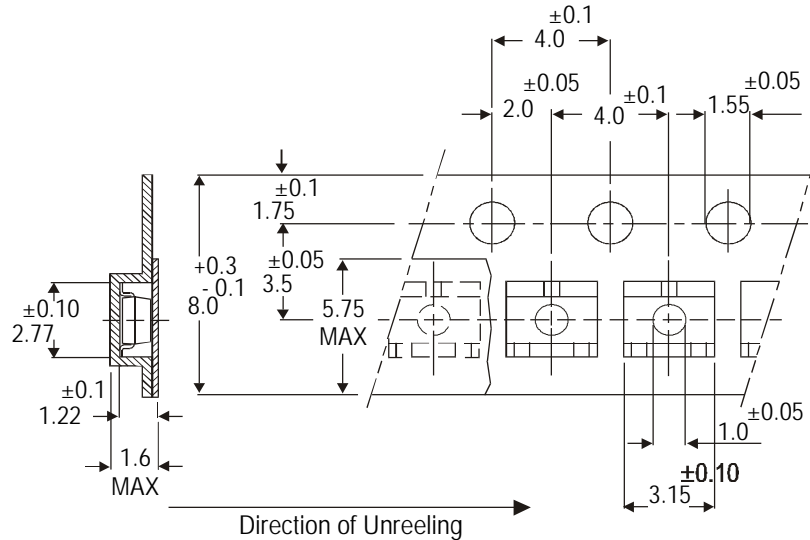
SOT-23 Package Reel Information
Reel Specifications for W Packing (13") and 7"



NOTES:

- | No. of Devices | 8mm Tape Size of Reel | 8mm Tape Size of Reel |
|----------------|-----------------------|-----------------------|
| 10,000 Pcs | 330 mm (13") | 180 mm (7") |
| | | 3,000 Pcs |
- The bandolier of 330 mm reel contains at least 10,000 devices.
 - The bandolier of 180 mm reel contains at least 3,000 devices.
 - No more than 0.5% missing devices / reel. 50 empty compartments for 330 mm reel. 15 empty compartments for 180 mm reel.
 - Three consecutive empty places might be found provided this gap is followed by 6 consecutive devices.
 - The carrier tape (leader) starts with at least 75 empty positions (equivalent to 330 mm). In order to fix the carrier tape a self adhesive tape of 20 to 50 mm is applied. At the end of the bandolier at least 40 empty positions (equivalent to 160 mm) are there.

Tape Specification for SOT-23 Surface Mount Device



Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
SOT-23 T&R	3K/feel	136 gm/3K pcs	3" x 7.5" x 7.5"	12 K	17" x 15" x 13.5"	192 K	12 kgs
	10K/feel	415 gm/10K pcs	9" x 9" x 9"	51 K	19" x 19" x 19"	408 K	28 kgs
			13" x 13" x 0.5"	10 K	17" x 15" x 13.5"	300 K	16 kgs