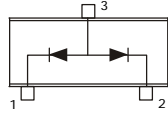
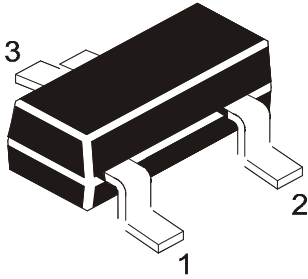


**SILICON PLANAR DUAL SWITCHING DIODES**

**BAW56**



**Pin Configuration**  
 1 = CATHODE  
 2 = CATHODE  
 3 = ANODE

**SOT-23**

**Formed SMD Package**

For Lead Free Parts, Device Part # will be Prefixed with "T"

**Marking**

**BAW56 - A1**

**High-Speed Switching Dual Diodes, Common Anode**

**ABSOLUTE MAXIMUM RATINGS (Rating Per Diode)**

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	$I_{FRM}$	450	mA
Non Repetitive Peak Forward Current (per crystal)			
t=1 ns	$I_{FSM}$	4.0	A
t=1 ms	$I_{FSM}$	1.0	A
t=1 s	$I_{FSM}$	0.5	A
Power Dissipation up to $T_a=25^\circ\text{C}$	$P_D$	250	mW
Storage Temperature	$T_{stg}$	- 55 to +150	$^\circ\text{C}$
Junction Temperature	$T_j$	150	$^\circ\text{C}$

**THERMAL RESISTANCE**

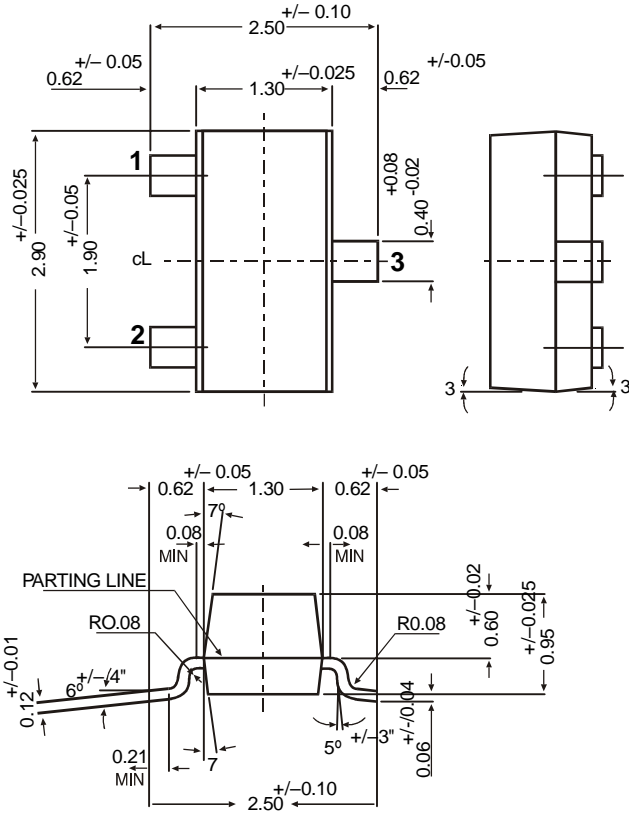
Junction to Ambient in free air	$R_{th(j-a)}$	500	K/W
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**ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$  unless specified otherwise) per diode**

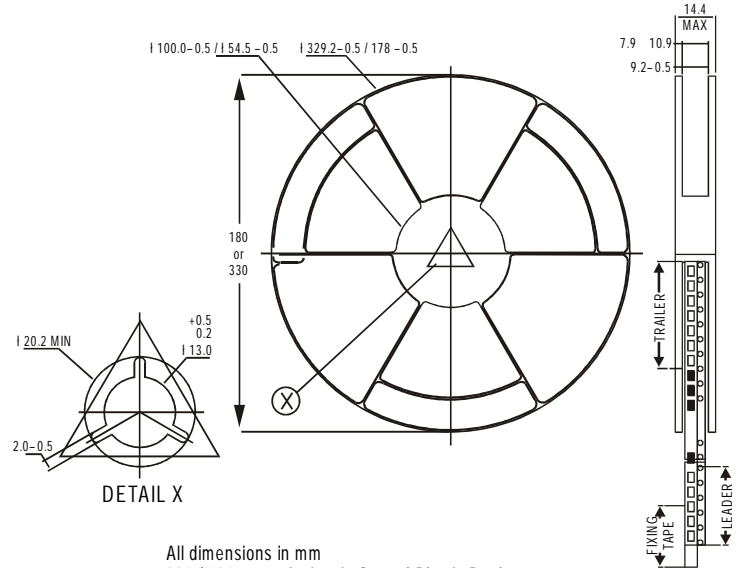
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNIT
Forward Voltage	$V_F$	$I_F = 1\text{mA}$		0.715	V
		$I_F = 10\text{mA}$		0.855	V
		$I_F = 50\text{mA}$		1.0	V
		$I_F = 150\text{mA}$		1.25	V
Reverse Current	$I_R$	$V_R=25\text{V}, T_j=150^\circ\text{C}$		30	$\mu\text{A}$
		$V_R=75\text{V}$		1.0	$\mu\text{A}$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

BAW56REV\_1 071105E

SOT-23 Formed SMD Package



SOT-23 Package Reel Information  
Reel specifications for Packing (13"/7" reels)



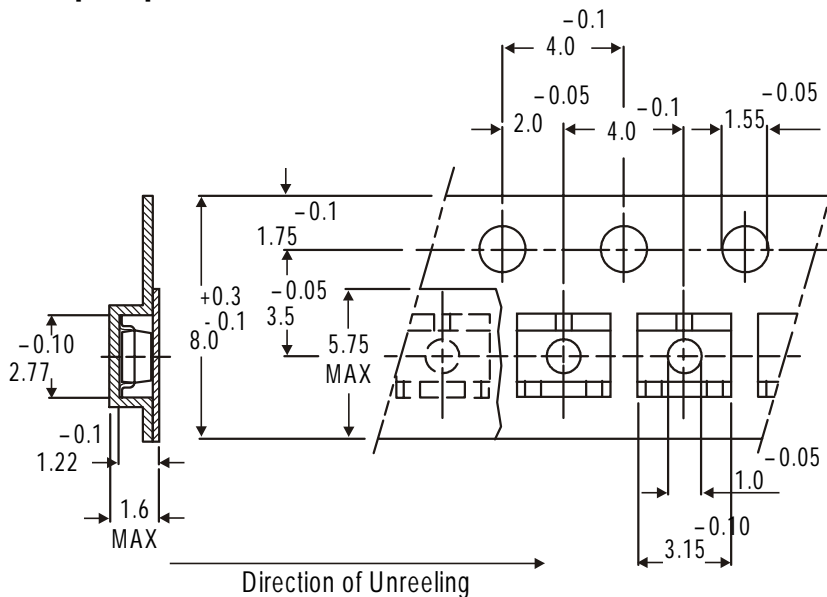
All dimensions in mm  
330 / 180 mm Antistatic Coated Plastic Reel

NOTES:

No. of Devices	8mm Tape Size of Reel 330 mm (13") 10,000 Pcs	8mm Tape Size of Reel 180 mm (7") 3,000 Pcs
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- The bandoler of 330 mm reel contains at least 10,000 devices.
- The bandoler 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 bandoler at least 40 empty positions (equivalent to 160 mm) are there.

Tape Specification for SOT-23 Surface Mount Device



All dimensions in mm

## 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/reel	136 gm/3K pcs	3" x 7.5" x 7.5"	12.0K	17" x 15" x 13.5"	192.0K	12 kgs
			9" x 9" x 9"	51.0K	19" x 19" x 19"	408.0K	28 kgs
	10K/reel	415 gm/10K pcs	13" x 13" x 0.5"	10.0K	17" x 15" x 13.5"	300.0K	16 kgs

## Customer Notes

### Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

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