

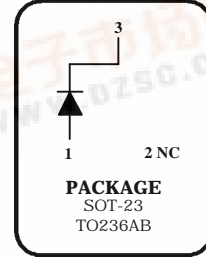
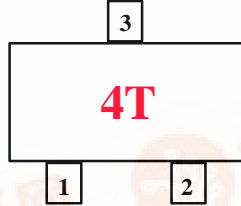
FAIRCHILD
SEMICONDUCTOR™

MMBD301

DISCRETE POWER AND SIGNAL
TECHNOLOGIES

CONNECTION DIAGRAM

PACKAGE
SOT-23
TO-236AB (Low)



Schottky Barrier Diode

Sourced from Process GD

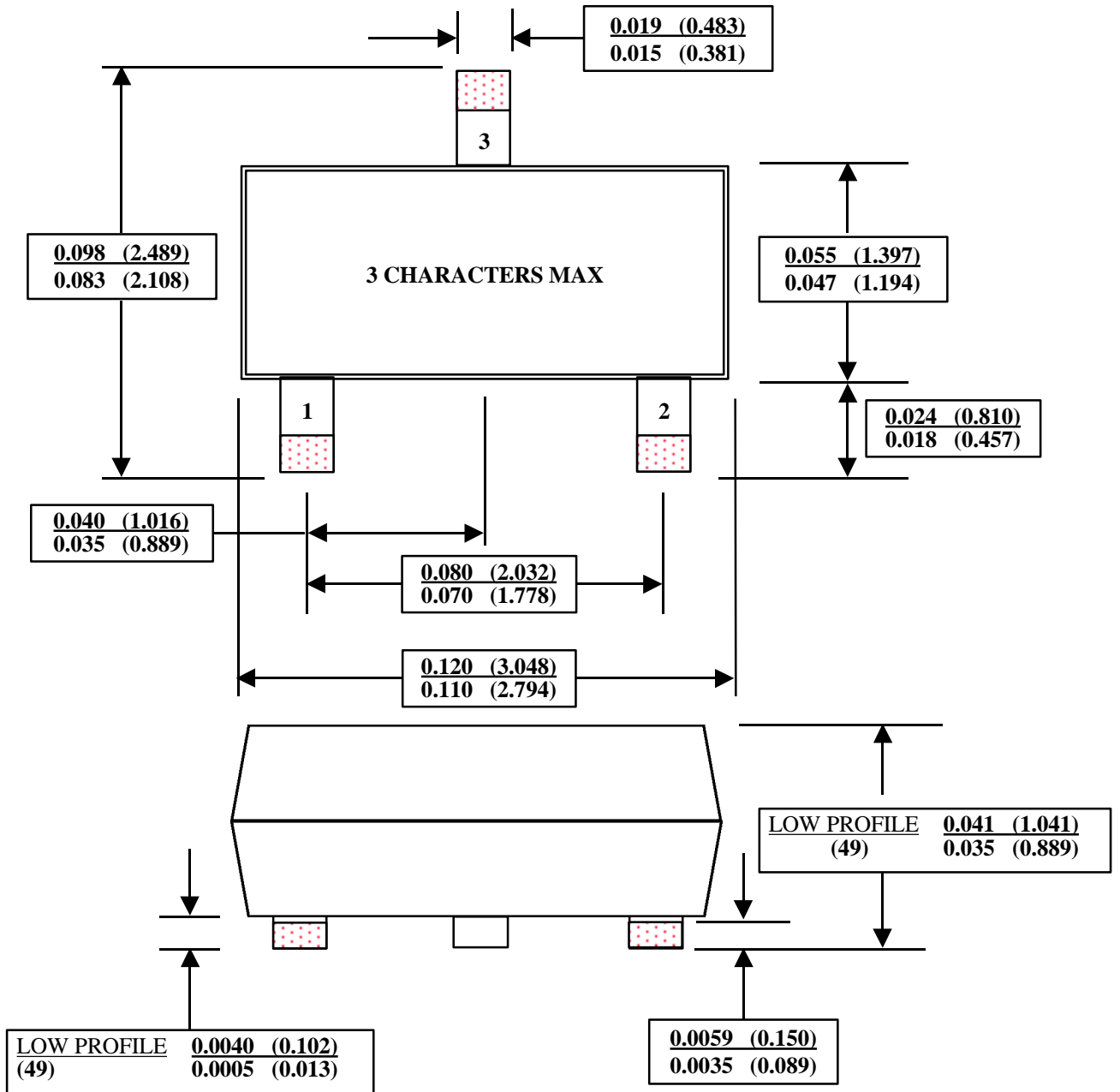
Absolute Maximum Ratings* TA = 25°C unless otherwise noted

Sym	Parameter	Value	Units
T _{stg}	Storage Temperature	-55 to +150	°C
T _J	Operating Junction Temperature	-55 to +125	°C
W _{iv}	Working Inverse Voltage	25	V
P _F	Forward Power Dissipation @ T _A = 25°C	200	mW
	Derate above 25°C	2.0	Mw/°C

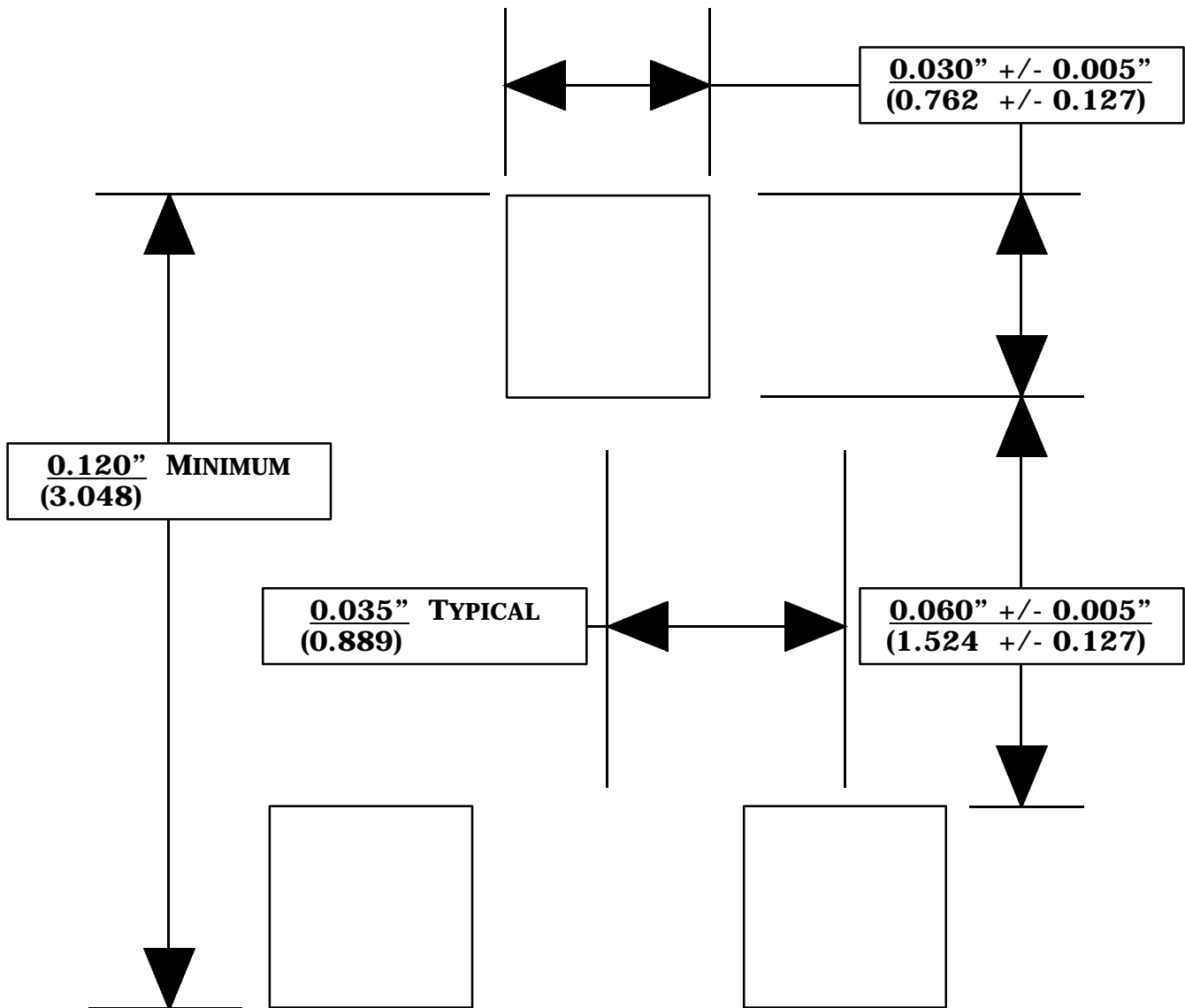
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired

Electrical Characteristics TA = 25°C unless otherwise noted

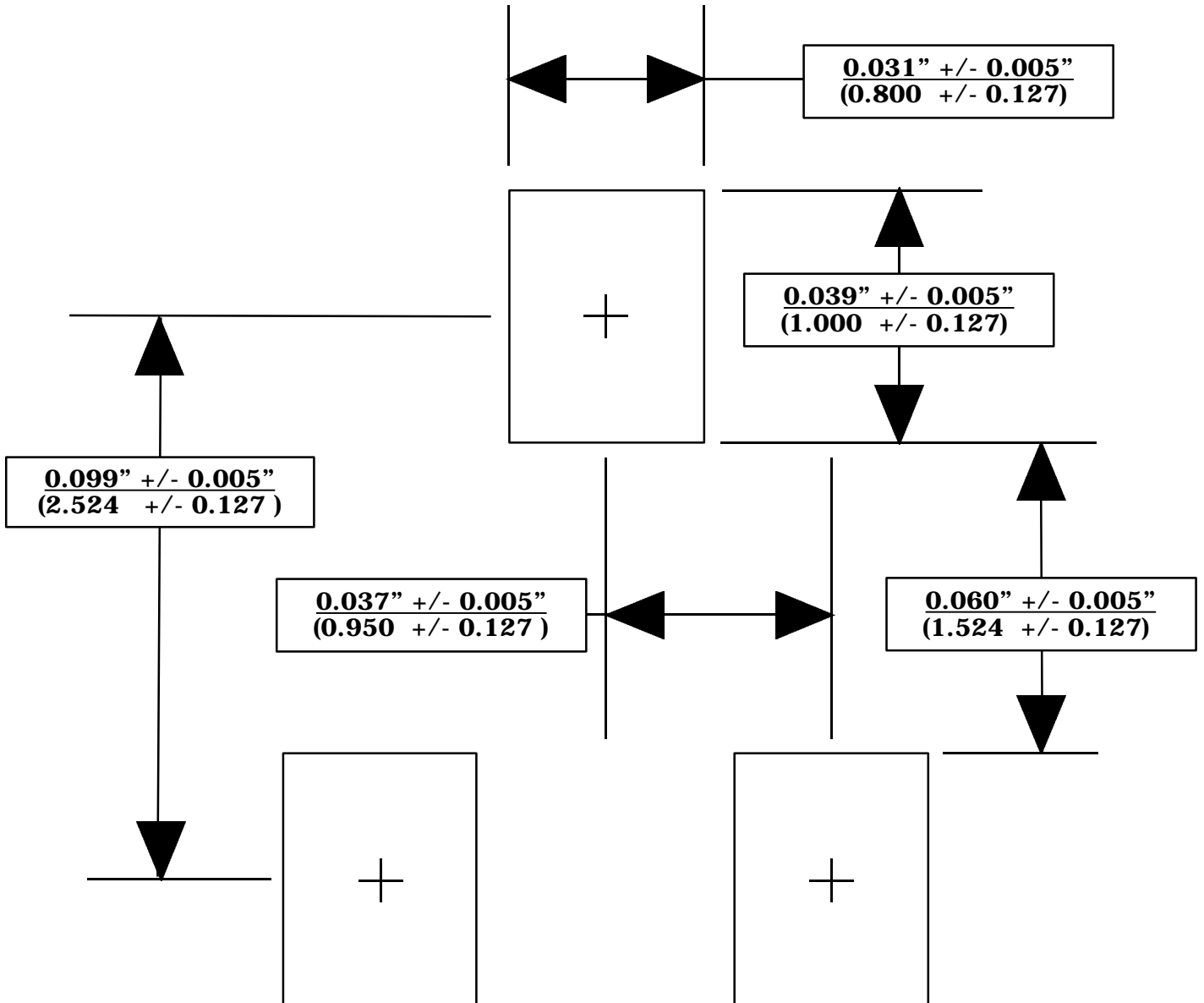
SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
B _V	Breakdown Voltage	30		V	I _R = 10 uA
I _R	Reverse Leakage		200	nA	V _R = 25 V
V _F	Forward Voltage		450 600	mV mV	I _F = 1.0 mA I _F = 10 mA
C _F	Capacitance		1.5	pF	V _R = 15 V f = 1.0 MHz



SOT-23
TO-236AB (LOW PROFILE)
22-August-1994



**RECOMMENDED SOLDER PADS
FOR
SOT-23**

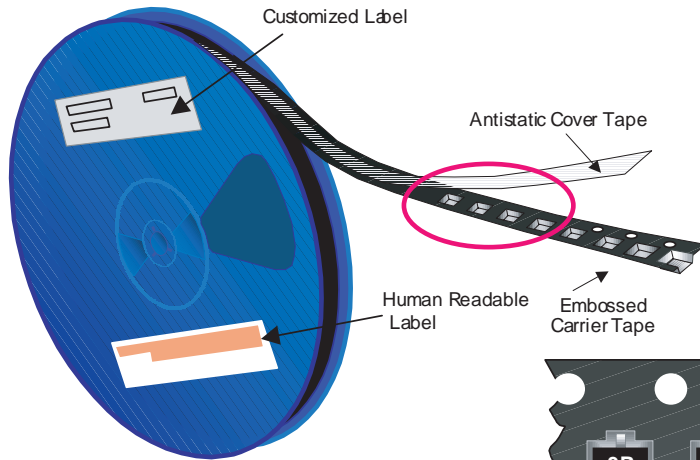


**RECOMMENDED SOLDER PADS
FOR
U.S. & European SOT-23
&
Japanese SC-59**

SOT-23 Tape and Reel Data and Package Dimensions



SOT-23 Packaging Configuration: Figure 10

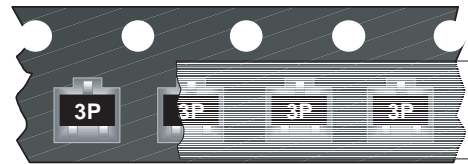


Packaging Description:

SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 177cm diameter reel. The reels are dark blue in color and is made of polystyrene plastic (anti-static coated). Other option comes in 10,000 units per 13" or 330cm diameter reel. This and some other options are described in the Packaging Information table.

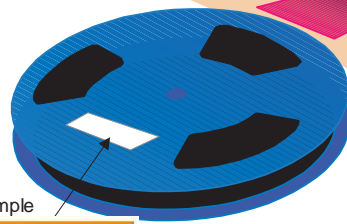
These full reels are individually labeled and placed inside a standard intermediate made of recyclable corrugated brown paper with a Fairchild logo printing. One pizza box contains eight reels maximum. And these intermediate boxes are placed inside a labeled shipping box which comes in different sizes depending on the number of parts shipped.

SOT-23 Packaging Information		
Packaging Option	Standard (no flow code)	D87Z
Packaging type	TNR	TNR
Qty per Reel/Tube/Bag	3,000	10,000
Reel Size	7" Dia	13"
Box Dimension (mm)	187x107x183	343x343x64
Max qty per Box	24,000	30,000
Weight per unit (gm)	0.0082	0.0082
Weight per Reel (kg)	0.1175	0.4006
Note/Comments		

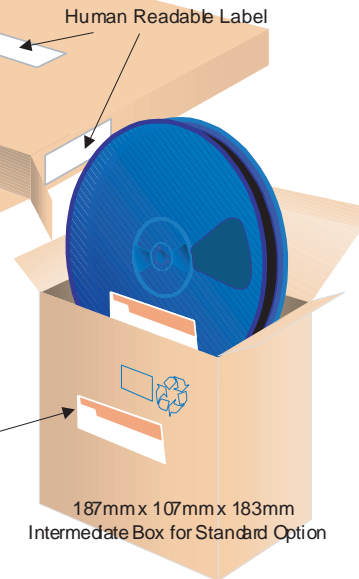


SOT-23 Unit Orientation

343mm x 342mm x 64mm Intermediate box for L87Z Option

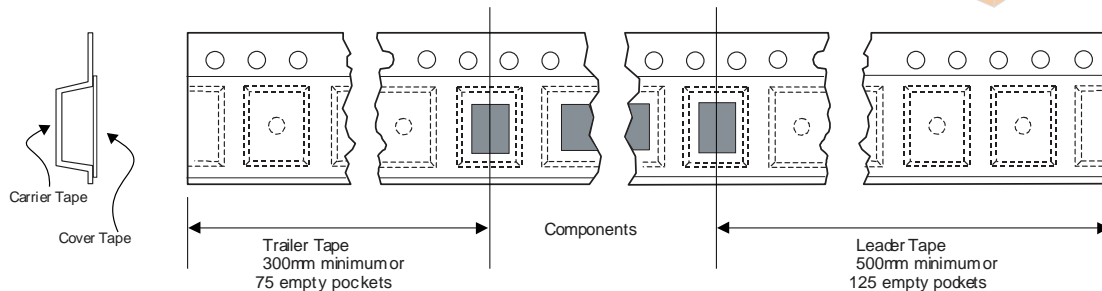


Human Readable Label sample



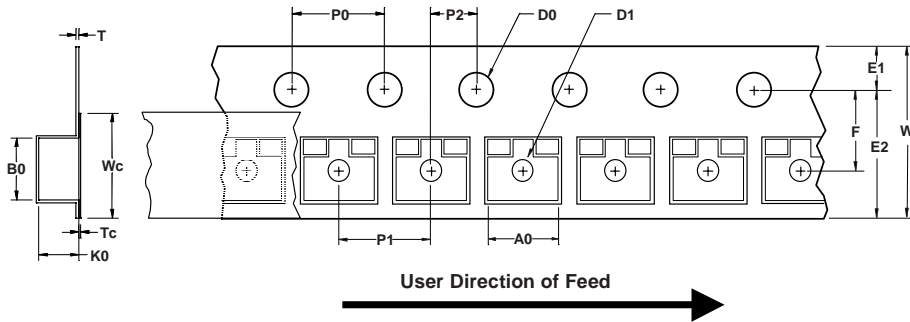
187mm x 107mm x 183mm Intermediate Box for Standard Option

SOT-23 Tape Leader and Trailer Configuration: Figure 20



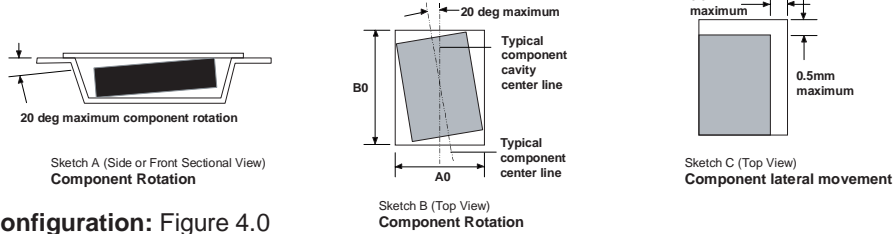
SOT-23 Tape and Reel Data and Package Dimensions, continued

SOT-23 Embossed Carrier Tape Configuration: Figure 3.0

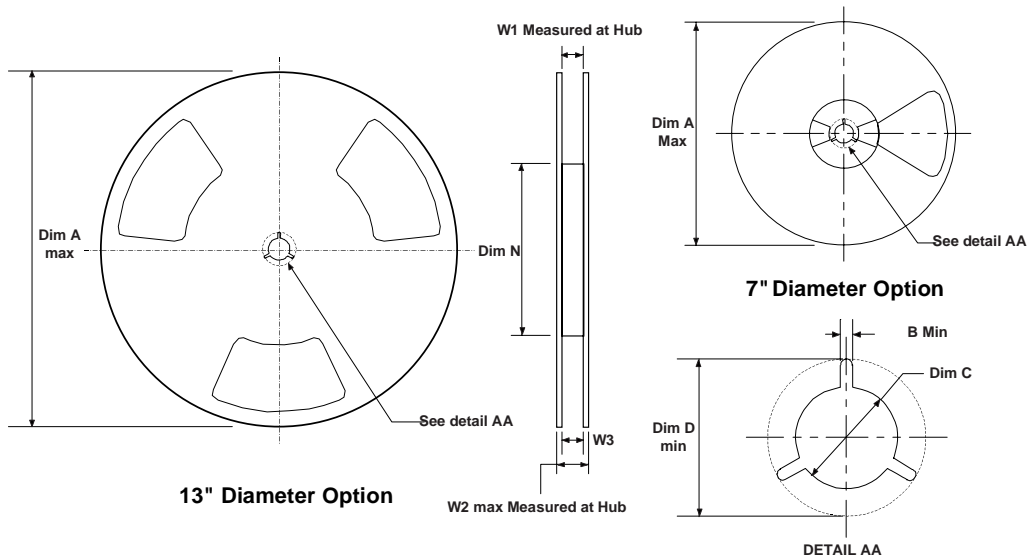


Dimensions are in millimeter														
Pkg type	A0	B0	W	D0	D1	E1	E2	F	P1	P0	K0	T	Wc	Tc
SOT-23 (8mm)	3.15 +/-0.10	2.77 +/-0.10	8.0 +/-0.3	1.55 +/-0.05	1.125 +/-0.125	1.75 +/-0.10	6.25 min	3.50 +/-0.05	4.0 +/-0.1	4.0 +/-0.1	1.30 +/-0.10	0.228 +/-0.013	5.2 +/-0.3	0.06 +/-0.02

Notes: A0, B0, and K0 dimensions are determined with respect to the EIA/Jedec RS-481 rotational and lateral movement requirements (see sketches A, B, and C).



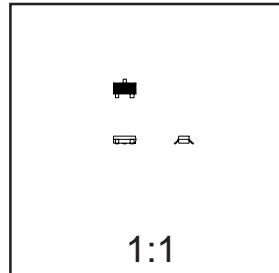
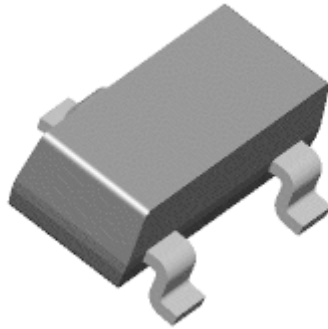
SOT-23 Reel Configuration: Figure 4.0



Dimensions are in inches and millimeters									
Tape Size	Reel Option	Dim A	Dim B	Dim C	Dim D	Dim N	Dim W1	Dim W2	Dim W3 (LSL-USL)
8mm	7" Dia	7.00 177.8	0.059 1.5	512 +0.020/-0.008 13 +0.5/-0.2	0.795 20.2	2.165 55	0.331 +0.059/-0.000 8.4 +1.5/0	0.567 14.4	0.311 - 0.429 7.9 - 10.9
8mm	13" Dia	13.00 330	0.059 1.5	512 +0.020/-0.008 13 +0.5/-0.2	0.795 20.2	4.00 100	0.331 +0.059/-0.000 8.4 +1.5/0	0.567 14.4	0.311 - 0.429 7.9 - 10.9

SOT-23 Tape and Reel Data and Package Dimensions, continued

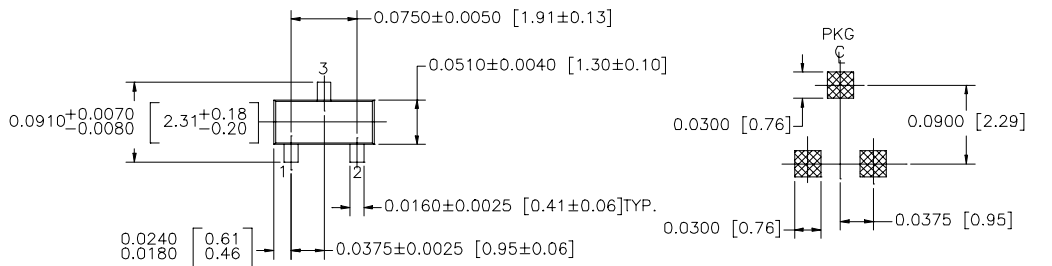
SOT-23 (FS PKG Code 49)



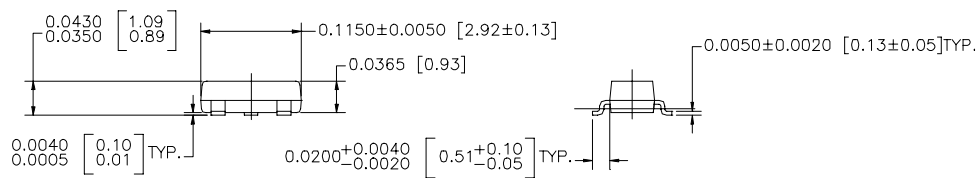
Scale 1:1 on letter size paper

Dimensions shown below are in:
inches [millimeters]

Part Weight per unit (gram): 0.0082



LAND PATTERN RECOMMENDATION



CONTROLLING DIMENSION IS INCH
VALUES IN [] ARE MILLIMETERS

SOT 23, 3 LEADS LOW PROFILE

NOTE : UNLESS OTHERWISE SPECIFIED

- STANDARD LEAD FINISH 150 MICRONS / 3.81 MICROMETERS
MINIMUM TIN / LEAD (SOLDER) ON ALLOY 42
- REFERENCE JEDEC REGISTRATION TO-236, VARIATION AB, ISSUE G, DATED JUL 1993

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FACT Quiet Series™	QS™	
FAST®	Quiet Series™	
FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	
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