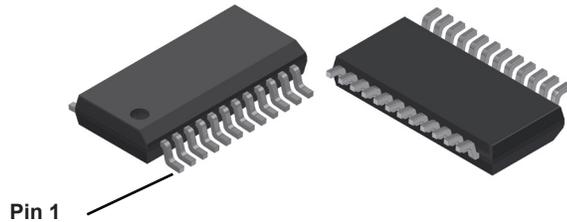


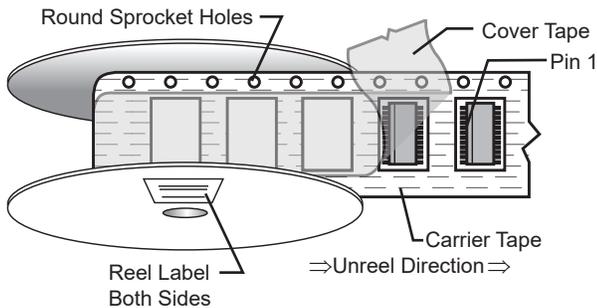
## LF-24 Package, TR Suffix



Terminals: 24  
Gull-wing pins  
Narrow body

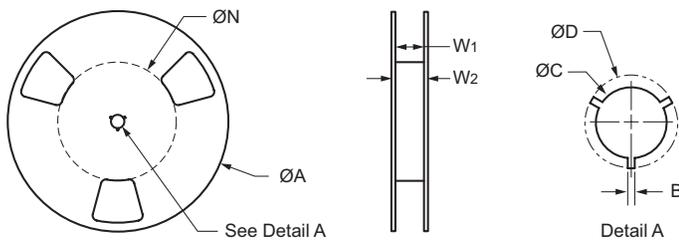
QSOP24

JEDEC: MO-137 AE



- Embossed tape and reel
- 2500 pieces per 13 in. reel
- 25 min. trailer pockets
- 55 min. leader pockets
- Branded face outward
- Pin 1 on trailing device edge, sprocket hole side

Leader pockets are the first off the reel when the tape is unreeled for dispensing devices. Trailer pockets are the last pockets off the reel when unreeled for dispensing devices.

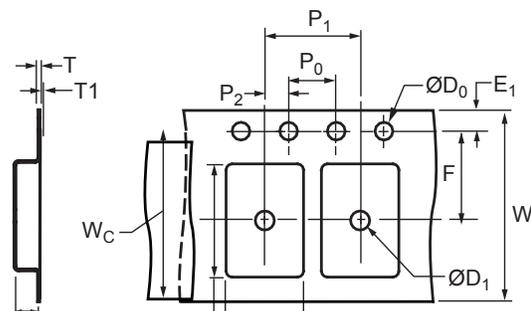


Access hole and hub configuration may vary at supplier discretion within limits shown

### Dimensions in mm

Type	A	B	C	D	N
Plastic 13 in.	330 (Nom)	1.5 (Min)	13 <sup>+0.5</sup> <sub>-0.2</sub>	20.2 (Min)	102 (Nom)
<b>W<sub>1</sub> (inside, at Hub)</b>			16.4 (Min)		
<b>W<sub>2</sub> (outside, at Hub)</b>			22.4 (Max)		

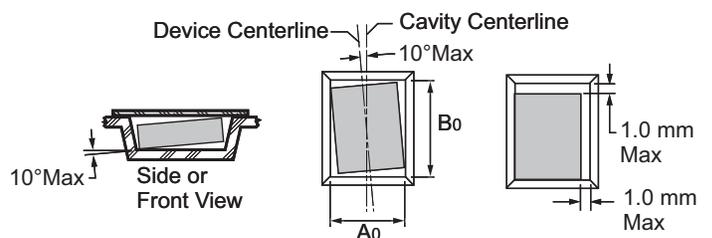
Reference EIA 481



### Dimensions in mm, may vary with supplier

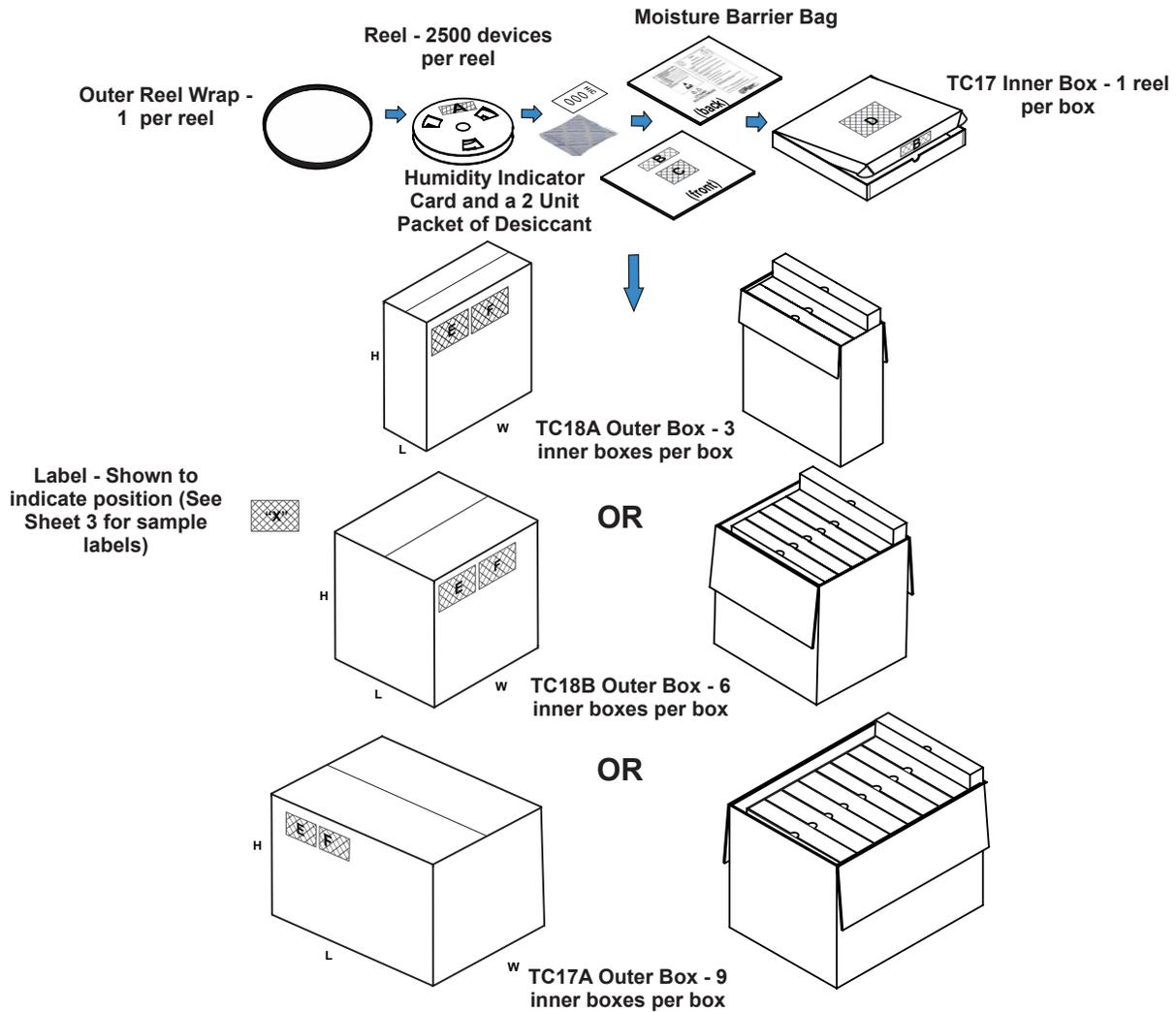
Carrier Tape			Cover Tape
W: 16.00	D <sub>0</sub> : 1.50	A <sub>0</sub> : 6.5	W <sub>C</sub> : 13.3 T <sub>1</sub> : 0.061
E <sub>1</sub> : 1.75	P <sub>0</sub> : 4.00	B <sub>0</sub> : 9.5	
F: 7.5	P <sub>1</sub> : 8.00	K <sub>0</sub> : 2.1	
T: 0.30	P <sub>2</sub> : 2.00	D <sub>1</sub> : 1.6	

1. Pocket centerlines to cavity center, not to pocket detection hole.
2. A<sub>0</sub> and B<sub>0</sub> measured 0.3 mm above bottom of pocket.
3. Reference EIA 481.



Reference EIA 481

## LF-24 Package, TR Suffix



**Carton Dimensions (mm)**

Type	Length	Width	Height	Inner Carton Standard Quantity	Outer Carton Standard Quantity
TC17	351	364	56	2500	
TC18A	188	380	365		7500
TC18B	380	368	365		15000
TC17A	536	403	400		22500

\* Carton Details pertain only to Full Standard Increments. Partial orders will only be provided for samples or due to exceptional circumstances. Partial orders may not be packed according to Carton Details but may require protective filler, empty inner boxes or other packing modifications.

## LF-24 Package, TR Suffix

### Reel Production Label [A]

1.125in x 4in

	Part No: XXXXXXXXXXXXXXXXXXXX	Date: 20150106
	Catalog: XXXXXXXXXXXXXXXXXXXX-X	MS-Level: 2
	Qty: XXXX	Moisture Sensitive Device
	Lot 1: 1234567ABCD	Qty 1: XXXX Peak Reflow: 260C
	Lot 2: N/A	Qty 2: 0

 Reel  

### Moisture Barrier Bag/ Box Flap Label [B]

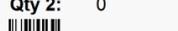
1.125in x 4in

	Part No: XXXXXXXXXXXXXXXXXXXX	Date: 20150106
	Catalog: XXXXXXXXXXXXXXXXXXXX-X	MS-Level: 2
	Qty: XXXX	Moisture Sensitive Device
	Lot 1: 1234567ABCD	Qty 1: XXXX Peak Reflow: 260C
	Lot 2: N/A	Qty 2: 0

### 1D Production Label [C]

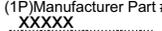
2.5in x 3.75in

Allegro MicroSystems, LLC 	
<b>Cust PN:</b> XXXXXXXXXXXX	
<b>Mfr PN:</b> XXXXXXXXXXXX	
<b>Alg In:</b> XXXXXXXXXXXX	
<b>Lot 1:</b> 9999999XXXX	<b>Qty 1:</b> 1000
	
<b>Lot 2:</b> N/A	<b>Qty 2:</b> 0
	
<b>D/C:</b> 0101	<b>Total Qty:</b> 1000
	

Bag

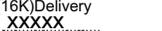
### Inner Carton Label [D]

4in x 6.5in

Allegro MicroSystems LLC		
(1K)Sales Order Number XXXXX 	(P)Customer Part Number XXXXX 	(Q)Quantity XXXXX 
(9D)Date Code XXXXX 	(1T)Lot Number XXXXX 	 
(16K)Delivery XXXXX 	(1P)Manufacturer Part # XXXXX 	
(K)Purchase Order Number XXXXX 	 	
		
  		Br. Cl. F. I.
Manufacturer ALLEGRO MICROSYSTEMS LLC		Made in XXXXXX

### Outer Carton Label [E]

4in x 6.5in

Allegro MicroSystems LLC	
(1K)Sales Order Number XXXXX 	(P)Customer Part Number XXXXXXXXXXXX 
(16K)Delivery XXXXX 	(Q)Quantity XXXXX 
(1P)Manufacturer Part # XXXXX 	
(K)Purchase Order Number XXXXX 	
	
  	
Br. Cl. F. I.	
Manufacturer ALLEGRO MICROSYSTEMS LLC	
Made in XXXXXX	

XXXXXXXXXXXX

### Outer Carton Address Label [F]

4in x 6.5in

ALLEGRO MICROSYSTEMS, LLC 115 NORTHEAST CUTOFF WORCESTER, MA 01606		
ALLEGRO MICROSYSTEMS, LLC 115 NORTHEAST CUTOFF WORCESTER, MA 01606		
Package 1/1		

\* Label examples are shown for content purposes only. Labels are not shown to scale. Given label dimensions are approximate. As required, the necessary compliance symbols on the labels will meet the ship to country regulations.



## LF-24 Package, TR Suffix

### Revision History

Revision No.	Date	ECN Number	Description
0	8/19/2016	OI	ORIGINAL RELEASE
1	8/30/2017	CR-2017-03116	FORMAT UPDATE. ADD ADDRESS LABEL. UPDATE JEDEC REF.

This document provides reference information that can be used to identify leadform and packing options offered by Allegro MicroSystems, LLC. This information is for reference only, and not for tooling use. This information is subject to change without notice. Packing and labelling for shipment may vary with device type, quantities, and other conditions; specifications may vary with contract terms and availability.

Packing options vary according to the individual device being offered. Refer to the device datasheet (visit our website at: [www.allegromicro.com](http://www.allegromicro.com)) for a listing of packing options for that device. Not all options are available for any particular package designation or device type, and provision of certain configurations may be subject to minimum volume or NCNR (noncancellation, nonreturn) limitations. Contact your local Allegro field service representative for additional information.

For more information on the physical appearance of device packages and leadforms, refer to the device datasheet or the application note [Allegro Package Designations](#) on the Allegro website.

When applicable, references are provided to industry standards, such as for tape and reel specifications standard package outline designations. These references are provided for informational purposes only, and do not necessarily indicate full conformity with that standard in all respects.

No dimensional tolerances are guaranteed or implied for bulk packing.

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