Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

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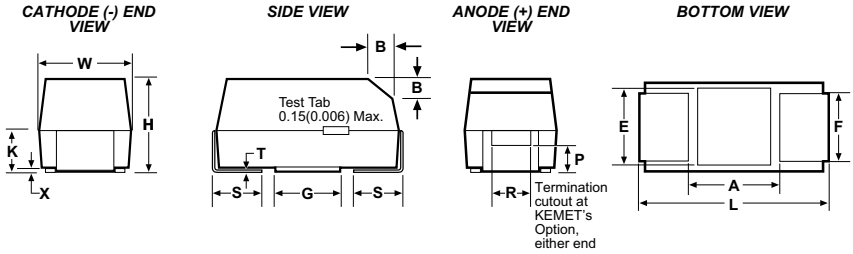
SOLID TANTALUM CHIP CAPACITORS

T496 SERIES—Fail-Safe Fused

FEATURES

- Built-in fuse protects against damaging short circuit failure mode
- Precision-molded, laser-marked case
- Symmetrical, compliant terminations
- Taped and reeled per EIA 481-1
- Case geometry and footprints equivalent to Industrial Grade T491 Series. (Case sizes B, C, D and X only)
- 100% Surge Current test on C, D, X sizes
- Patented fuse assembly
- Operating Temperature: -55°C to +125°C
- Fuse actuation, 25°C: within 1 second at fault currents of 4 amps and higher.
- Continuous current capability: 0.75 amps
- Post-actuation resistance, 25°C: 10 megohms minimum
- Test tabs on the sides of the case bypass the capacitor element to allow direct testing of the fuse assembly.
- RoHS Compliant & Leadfree Terminations (See www.kemet.com for lead transition)

OUTLINE DRAWINGS



DIMENSIONS — Millimeters (Inches)

CASE SIZE		COMPONENT													
KEMET	EIA	L	W	H	K ± 0.20 ± (.008)	F ± 0.1 ± (.004)	S ± 0.3 ± (.012)	B (Ref) ± 0.15 ± (.006)	X (Ref)	P (Ref)	R (Ref)	T (Ref)	A (Min)	G (Ref)	E (Ref)
B	3528-21	3.5 ± 0.2 (.138 ± .008)	2.8 ± 0.2 (.110 ± .008)	1.9 ± 0.2 (.075 ± .008)	1.1 (.043)	2.2 (.087)	0.8 (.031)	0.4 (.016)	0.10 ± 0.10 (.004 ± .004)	0.5 (.020)	1.0 (.039)	0.13 (.005)	2.1 (.083)	1.8 (.071)	2.2 (.087)
C	6032-28	6.0 ± 0.3 (.236 ± .012)	3.2 ± 0.3 (.126 ± .012)	2.5 ± 0.3 (.098 ± .012)	1.4 (.055)	2.2 (.087)	1.3 (.051)	0.5 (.020)	0.10 ± 0.10 (.004 ± .004)	0.9 (.035)	1.0 (.039)	0.13 (.005)	3.1 (.122)	2.8 (.110)	2.4 (.094)
D	7343-31	7.3 ± 0.3 (.287 ± .012)	4.3 ± 0.3 (.169 ± .012)	2.8 ± 0.3 (.110 ± .012)	1.5 (.059)	2.4 (.094)	1.3 (.051)	0.5 (.020)	0.10 ± 0.10 (.004 ± .004)	0.9 (.035)	1.0 (.039)	0.13 (.005)	3.8 (.150)	3.5 (.138)	3.5 (.138)
X	7343-43	7.3 ± 0.3 (.287 ± .012)	4.3 ± 0.3 (.169 ± .012)	4.0 ± 0.3 (.157 ± .012)	2.3 (.091)	2.4 (.094)	1.3 (.051)	0.5 (.020)	0.10 ± 0.10 (.004 ± .004)	1.7 (.067)	1.0 (.039)	0.13 (.005)	3.8 (.150)	3.5* (.138)	3.5* (.138)

Notes: 1. Metric dimensions govern.
2. (Ref) - Dimensions provided for reference only.

* Round glue pad: 2.9 ± 0.1mm (.114" ± .004") in diameter at KEMET's option.

T496 Series – ORDERING INFORMATION

T 496 B 105 M 025 A S

Tantalum

Series
T496 - Precision Molded, Fail-safe

Case Size
B, C, D, X

Capacitance Picofarad Code
First two digits represent significant figures.
Third digit specifies number of zeros to follow.

Capacitance Tolerance
M - ± 20%
K - ± 10%

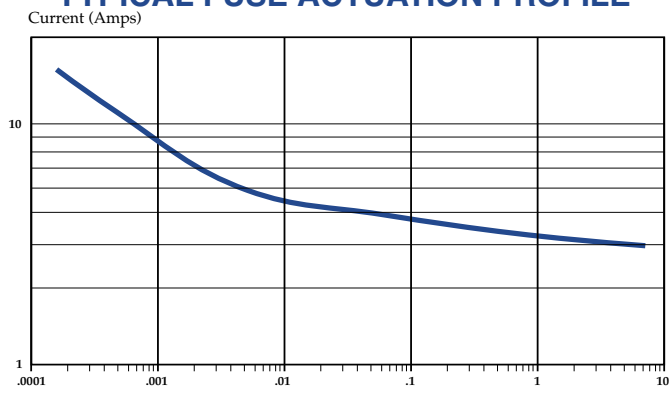
Voltage

Failure Rate
A - Not Applicable

Lead Material
T - 100% Sn (Tin) Plated
H - Tin/Lead (SnPb - 5% Pb minimum)
****S** - Not recommended for new designs

***Part number example: T496B105M025AT (14 digits - no spaces). See www.kemet.com for Pb Free transition.**
**** "S" Termination codes are converting from 90Sn/10 Pb to 100% tin finishes. Orders including "S" suffix termination codes do not guarantee Pb-free product.**

TYPICAL FUSE ACTUATION PROFILE



T496 RATINGS & PART NUMBER REFERENCE

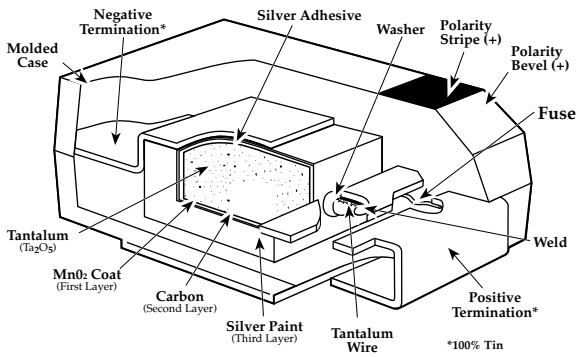
Capacitance µF	Case Size	KEMET Part Number	DCL µA @ 25°C Max.	DF % @ +25°C 120 Hz. Max.	ESR Ω@ +25°C 100 kHz Max.
4 Volt Rating at +85°C (2.7 Volt Rating at +125°C)					
68.0	*C	T496C686(1)004A(2)	2.7	6.0	1.6
100.0	*C	T496C107(1)004A(2)	4.0	8.0	1.2
150.0	D	T496D157(1)004A(2)	6.0	8.0	0.8
220.0	*D	T496D227(1)004A(2)	8.8	8.0	0.7
#330.0	*D	T496D337(1)004A(2)	13.2	8.0	0.7
330.0	*X	T496X337(1)004A(2)	13.2	8.0	0.7
#470.0	*X	T496X477(1)004A(2)	18.8	8.0	0.5
6 Volt Rating at +85°C (4 Volt Rating at +125°C)					
4.7	B	T496B475(1)006A(2)	0.5	6.0	3.5
6.8	B	T496B685(1)006A(2)	0.5	6.0	3.5
10.0	B	T496B106(1)006A(2)	0.6	6.0	3.5
22.0	B	T496B226(1)006A(2)	1.3	6.0	3.5
15.0	C	T496C156(1)006A(2)	0.9	6.0	2.0
22.0	C	T496C226(1)006A(2)	1.4	6.0	2.0
33.0	C	T496C336(1)006A(2)	2.0	6.0	2.0
47.0	D	T496D476(1)006A(2)	2.9	6.0	1.0
47.0	*C	T496C476(1)006A(2)	2.9	6.0	1.6
68.0	D	T496D686(1)006A(2)	4.1	6.0	1.0
#68.0	*C	T496C686(1)006A(2)	4.1	6.0	1.2
100.0	X	T496X107(1)006A(2)	6.0	8.0	0.9
100.0	D	T496D107(1)006A(2)	6.0	8.0	0.8
150.0	*D	T496D157(1)006A(2)	9.0	8.0	0.7
#220.0	*D	T496D227(1)006A(2)	13.2	8.0	0.7
220.0	*X	T496X227(1)006A(2)	13.2	8.0	0.7
#330.0	*X	T496X337(1)006A(2)	19.8	8.0	0.5
10 Volt Rating at +85°C (7 Volt Rating at + 125°C)					
3.3	B	T496B335(1)010A(2)	0.5	6.0	3.5
4.7	B	T496B475(1)010A(2)	0.5	6.0	3.5
6.8	B	T496B685(1)010A(2)	0.7	6.0	3.5
10.0	C	T496C106(1)010A(2)	1.0	6.0	2.0
15.0	B	T496B156(1)010A(2)	1.5	6.0	3.5
15.0	C	T496C156(1)010A(2)	1.5	6.0	2.0
22.0	C	T496C226(1)010A(2)	2.2	6.0	2.0
33.0	D	T496D336(1)010A(2)	3.3	6.0	1.0
33.0	*C	T496C336(1)010A(2)	3.3	6.0	1.6
47.0	D	T496D476(1)010A(2)	4.7	6.0	1.0
#47.0	*C	T496C476(1)010A(2)	4.7	6.0	1.2
68.0	X	T496X686(1)010A(2)	6.8	6.0	0.9
68.0	D	T496D686(1)010A(2)	6.8	6.0	0.8
100.0	D	T496D107(1)010A(2)	10.0	8.0	0.7
150.0	*X	T496X157(1)010A92)	15.0	8.0	0.7
#150.0	*D	T496D157(1)010A(2)	15.0	8.0	0.7
#220.0	*X	T496X227(1)010A(2)	22.0	8.0	0.5
16 Volt Rating at +85°C (10 Volt Rating at +125°C)					
2.2	B	T496B225(1)016A(2)	0.5	6.0	3.5
3.3	B	T496B335(1)016A(2)	0.5	6.0	3.5
4.7	B	T496B475(1)016A(2)	0.8	6.0	3.5
6.8	C	T496C685(1)016A(2)	1.1	6.0	2.0
10.0	B	T496B106(1)016A(2)	1.6	6.0	3.5
10.0	C	T496C106(1)016A(2)	1.6	6.0	2.0
15.0	C	T496C156(1)016A(2)	2.4	6.0	2.0
22.0	D	T496D226(1)016A(2)	3.6	6.0	1.0
22.0	*C	T496C226(1)016A(2)	3.6	6.0	1.6
33.0	D	T496D336(1)016A(2)	5.3	6.0	1.0
47.0	X	T496X476(1)016A(2)	7.5	6.0	0.9
47.0	D	T496D476(1)016A(2)	7.5	6.0	0.8
100.0	*X	T496X107(1)016A(2)	16.0	8.0	0.7

Capacitance µF	Case Size	KEMET Part Number	DCL µA @ 25°C Max.	DF % @ +25°C 120 Hz. Max.	ESR Ω@ +25°C 100 kHz Max.
20 Volt Rating at +85°C (13 Volt Rating at +125°C)					
1.5	B	T496B155(1)020A(2)	0.5	6.0	5.0
2.2	B	T496B225(1)020A(2)	0.5	6.0	3.5
3.3	B	T496B335(1)020A(2)	0.7	6.0	3.5
4.7	C	T496C475(1)020A(2)	1.0	6.0	2.0
6.8	C	T496C685(1)020A(2)	1.4	6.0	2.0
10.0	C	T496C106(1)020A(2)	2.0	6.0	2.0
15.0	D	T496D156(1)020A(2)	3.0	6.0	1.0
22.0	D	T496D226(1)020A(2)	4.4	6.0	1.0
33.0	X	T496X336(1)020A(2)	6.6	6.0	0.9
47.0	X	T496X476(1)020A(2)	9.4	6.0	0.3
25 Volt Rating at +85°C (17 Volt Rating at +125°C)					
0.68	B	T496B684(1)025A(2)	0.5	4.0	6.5
1.0	B	T496B105(1)025A(2)	0.5	4.0	5.0
1.5	B	T496B155(1)025A(2)	0.5	6.0	5.0
2.2	C	T496C225(1)025A(2)	0.6	6.0	3.5
3.3	C	T496C335(1)025A(2)	0.9	6.0	2.5
4.7	C	T496C475(1)025A(2)	1.2	6.0	2.5
6.8	C	T496C685(1)025A(2)	1.7	6.0	2.0
10.0	C	T496C106(1)025A(2)	2.5	6.0	0.6
10.0	D	T496D106(1)025A(2)	2.5	6.0	1.2
15.0	D	T496D156(1)025A(2)	3.8	6.0	1.0
22.0	X	T496X226(1)025A(2)	5.5	6.0	0.9
22.0	D	T496D226(1)025A(2)	5.5	6.0	0.8
35 Volt Rating at +85°C (23 Volt Rating at +125°C)					
0.47	B	T496B474(1)035A(2)	0.5	4.0	8.0
0.68	B	T496B684(1)035A(2)	0.5	4.0	6.5
1.0	B	T496B105(1)035A(2)	0.5	4.0	5.0
1.5	C	T496C155(1)035A(2)	0.5	6.0	4.5
2.2	C	T496C225(1)035A(2)	0.8	6.0	3.5
3.3	C	T496C335(1)035A(2)	1.2	6.0	2.5
4.7	D	T496D475(1)035A(2)	1.7	6.0	1.5
6.8	D	T496D685(1)035A(2)	2.4	6.0	1.3
10.0	X	T496X106(1)035A(2)	3.5	6.0	1.0
15.0	*X	T496X156(1)035A(2)	5.3	6.0	0.9
22.0	X	T496X226(1)035A(2)	7.7	6.0	0.3
50 Volt Rating at +85°C (33 Volt Rating at +125°C)					
0.15	B	T496B154(1)050A(2)	0.5	4.0	16.0
0.22	B	T496B224(1)050A(2)	0.5	4.0	14.0
0.33	B	T496B334(1)050A(2)	0.5	4.0	10.0
0.47	C	T496C474(1)050A(2)	0.5	4.0	8.0
0.68	C	T496C684(1)050A(2)	0.5	4.0	7.0
1.0	C	T496C105(1)050A(2)	0.5	4.0	5.5
1.5	C	T496C155(1)050A(2)	0.8	6.0	5.0
2.2	D	T496D225(1)050A(2)	1.1	6.0	2.5
3.3	D	T496D335(1)050A(2)	1.7	6.0	2.0

(1) To complete KEMET Part Number, insert M for ±20% tolerance or K for ±10% tolerance.
(2) To complete KEMET Part Number, insert lead material designation for Ordering Information on page 36.

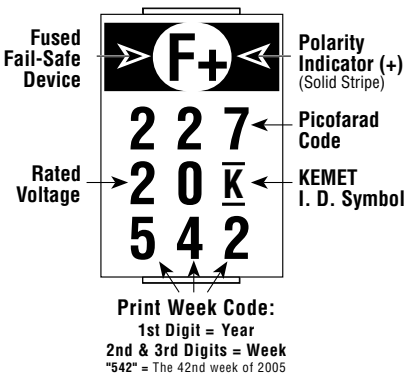
Higher voltage ratings and tighter capacitance tolerance product may be substituted within the same size at KEMET's option. Voltage substitutions will be marked with the higher voltage rating.

T496 SERIES CONSTRUCTION



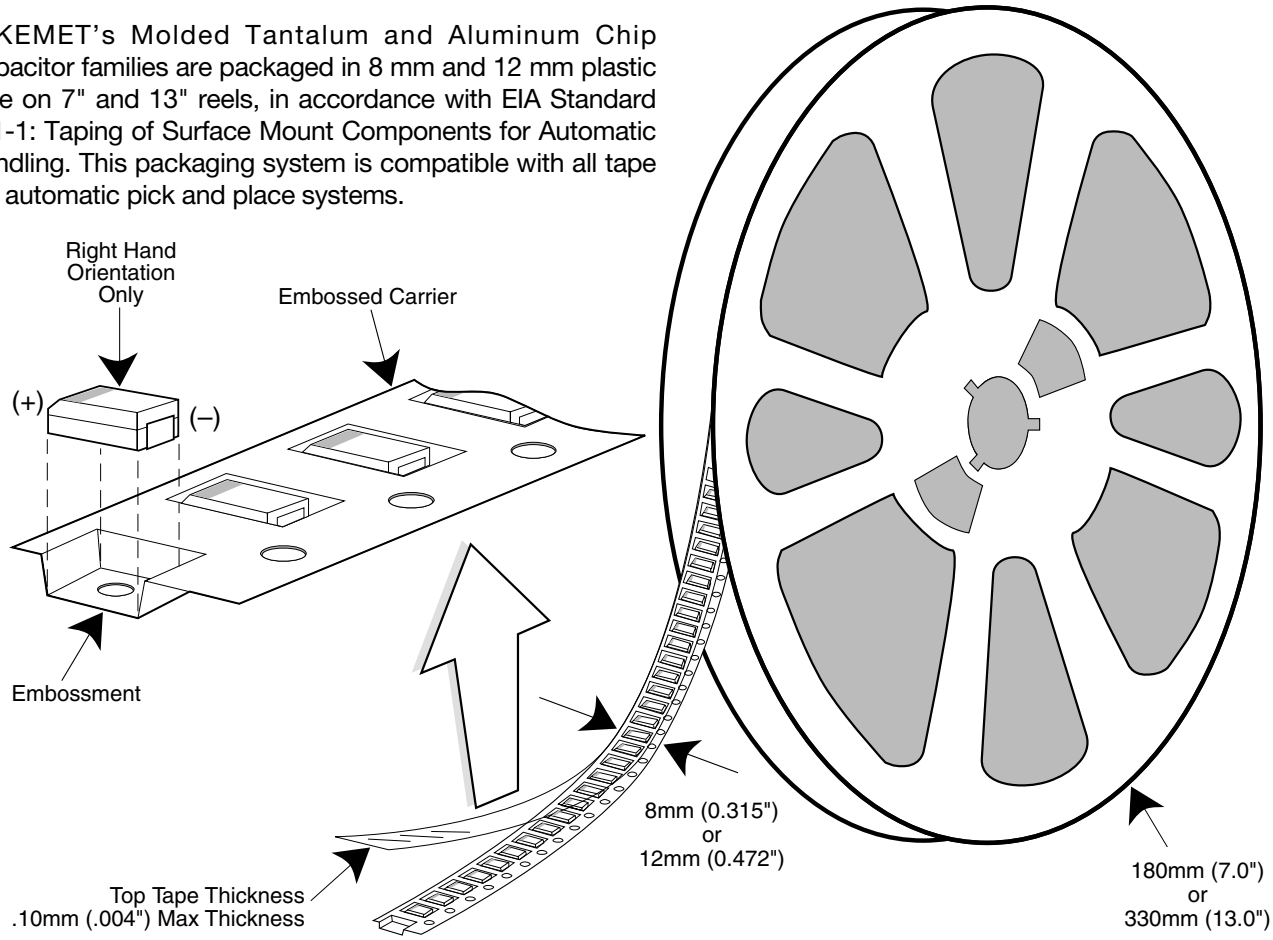
CAPACITOR MARKINGS

T496 Series — All Case Sizes



Tape & Reel Packaging

KEMET's Molded Tantalum and Aluminum Chip Capacitor families are packaged in 8 mm and 12 mm plastic tape on 7" and 13" reels, in accordance with EIA Standard 481-1: Taping of Surface Mount Components for Automatic Handling. This packaging system is compatible with all tape fed automatic pick and place systems.



Labeling: Bar code labeling (standard or custom) shall be on the side of the reel opposite the sprocket holes. Refer to EIA-556.

QUANTITIES PACKAGED PER REEL

Case Code		Tape Width-mm	7" Reel*	13" Reel*
KEMET	EIA			
R	2012-12	8	2,500	10,000
S	3216-12	8	2,500	10,000
T	3528-12	8	2,500	10,000
U	6032-15	12	1,000	5,000
W	7343-15	12	1,000	3,000
V	7343-20	12	1,000	3,000
A	3216-18	8	2,000	9,000
B	3528-21	8	2,000	8,000
C	6032-28	12	500	3,000
D	7343-31	12	500	2,500
Y	7343-40	12	500	2,000
X	7343-43	12	500	2,000
E	7260-38	12	500	2,000

* No c-spec required for 7" reel packaging. C-7280 required for 13" reel packaging.

Performance Notes

1. **Cover Tape Break Force:** 1.0 Kg Minimum.
2. **Cover Tape Peel Strength:** The total peel strength of the cover tape from the carrier tape shall be:

Tape Width	Peel Strength
8 mm	0.1 Newton to 1.0 Newton (10g to 100g)
12 mm	0.1 Newton to 1.3 Newton (10g to 130g)

   The direction of the pull shall be opposite the direction of the carrier tape travel. The pull angle of the carrier tape shall be 165° to 180° from the plane of the carrier tape. During peeling, the carrier and/or cover tape shall be pulled at a velocity of 300 ±10 mm/minute.
3. **Reel Sizes:** Molded tantalum capacitors are available on either 180 mm (7") reels (standard) or 330 mm (13") reels (with C-7280). Note that 13" reels are preferred.
4. **Labeling:** Bar code labeling (standard or custom) shall be on the side of the reel opposite the sprocket holes. Refer to EIA-556.

Embossed Carrier Tape Configuration: Figure 1

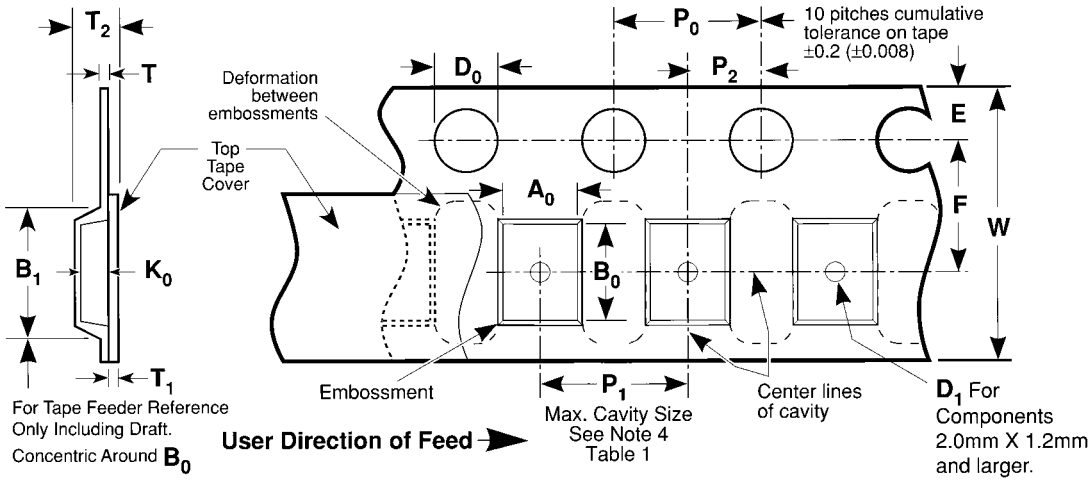


Table 1 — EMBOSSED TAPE DIMENSIONS (Metric will govern)

Constant Dimensions — Millimeters (Inches)							
Tape Size	**D_0**	**E**	**P_0**	**P_2**	**T Max**	**T_1 Max**	
8 mm and 12 mm	1.5 +0.10 -0.0 (0.059 +0.004, -0.0)	1.75 ±0.10 (0.069 ±0.004)	4.0 ±0.10 (0.157 ±0.004)	2.0 ±0.05 (0.079 ±0.002)	0.600 (0.024)	0.100 (0.004)	

Variable Dimensions — Millimeters (Inches)									
Tape Size	**Pitch**	**B_1 Max. Note 1**	**D_1 Min. Note 2**	**F**	**P_1**	**R Min. Note 3**	**T_2 Max**	**W**	**$A_0B_0K_0$ Note 4**
8 mm	Single (4 mm)	4.4 (0.173)	1.0 (0.039)	3.5 ±0.05 (0.138 ±0.002)	4.0 ±0.10 (0.157 ±0.004)	25.0 (0.984)	2.5 (0.098)	8.0 ±0.30 (.315 ±0.012)	
12 mm	Double (8 mm)	8.2 (0.323)	1.5 (0.059)	5.5 ±0.05 (0.217 ±0.002)	8.0 ±0.10 (0.315 ±0.004)	30.0 (1.181)	4.6 (0.181)	12.0 ±0.30 (0.472 ±0.012)	

NOTES

1. B1 dimension is a reference dimension for tape feeder clearance only.
2. The embossment hole location shall be measured from the sprocket hole controlling the location of the embossment. Dimensions of embossment location and hole location shall be applied independent of each other.
3. Tape with components shall pass around radius "R" without damage (see sketch A). The minimum trailer length (Fig. 2) may require additional length to provide R min. for 12 mm embossed tape for reels with hub diameters approaching N min. (Table 2)
4. The cavity defined by A_0, B_0, and K_0 shall be configured to surround the part with sufficient clearance such that the chip does not protrude beyond the sealing plane of the cover tape, the chip can be removed from the cavity in a vertical direction without mechanical restriction, rotation of the chip is limited to 20 degrees maximum in all 3 planes, and lateral movement of the chip is restricted to 0.5 mm maximum in the pocket (not applicable to vertical clearance.)

Embossed Carrier Tape Configuration (cont.)

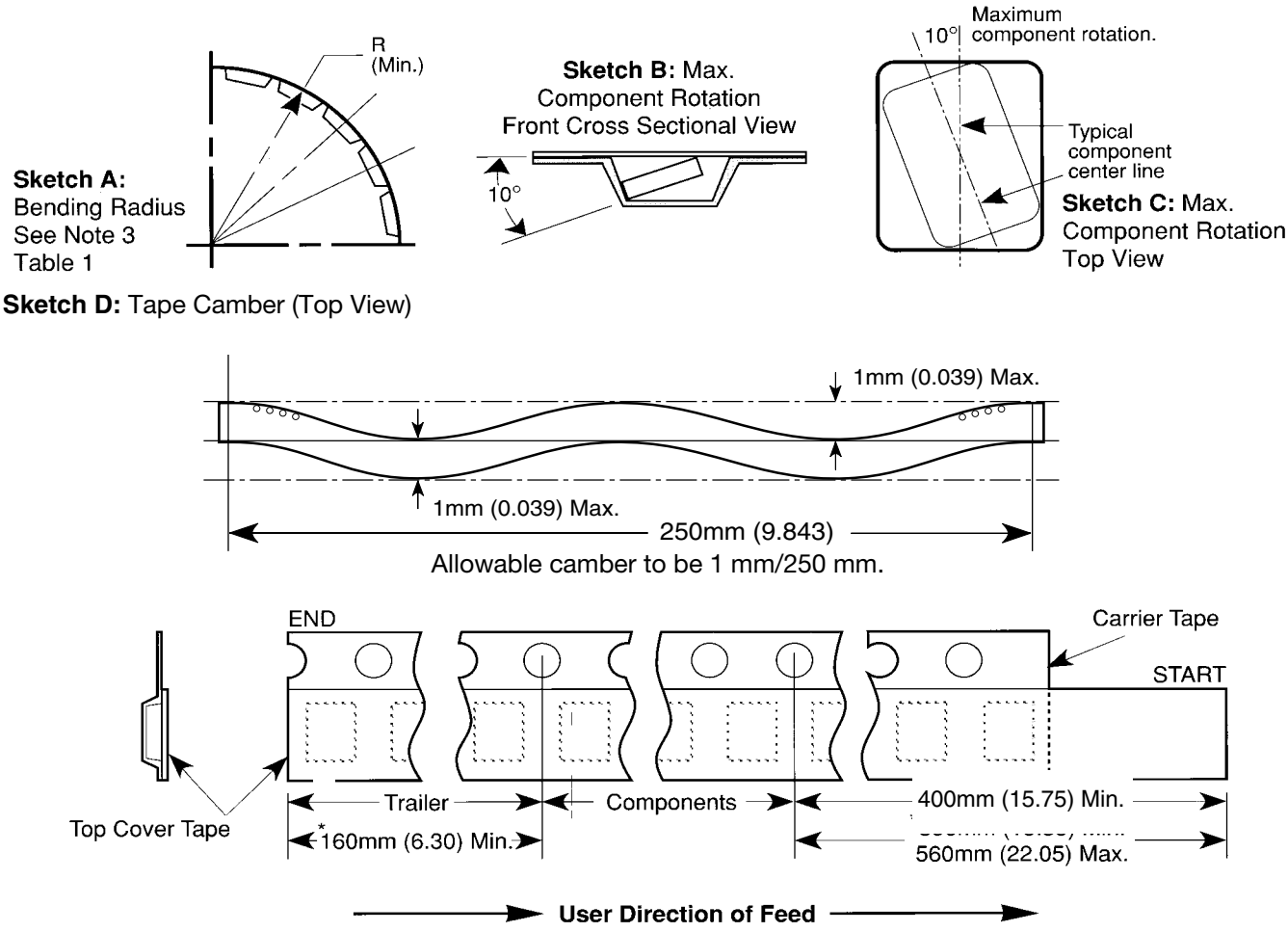


Figure 2: Tape Leader & Trailer Dimensions (Metric Dimensions Will Govern)

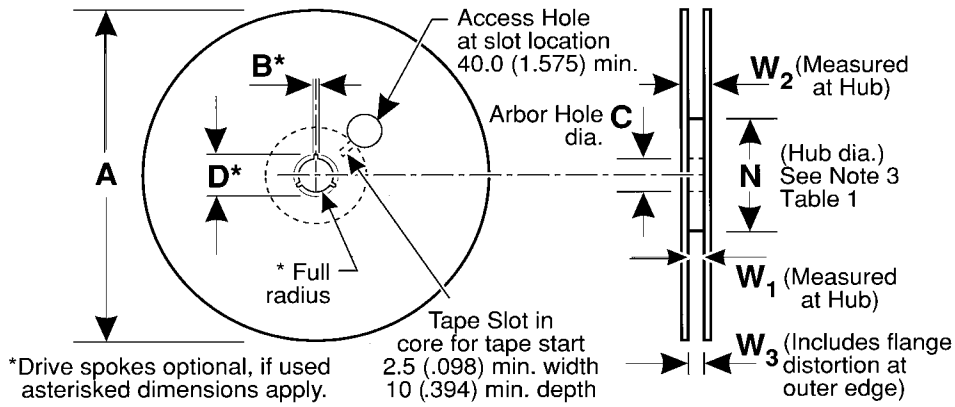


Figure 3: Reel Dimensions (Metric Dimensions will govern)

Table 2 – REEL DIMENSIONS (Metric will govern)

Tape Size	A Max	B* Min	C	D* Min	N Min	W_1	W_2 Max	W_3
8 mm	330.0 (12.992)	1.5 (0.059)	13.0 ± 0.20 (0.512 ± 0.008)	20.2 (0.795)	50.0 (1.969) See Note 3 Table 1	8.4 +1.5, -0.0 (0.331 +0.059, -0.0)	14.4 (0.567)	7.9 Min (0.311) 10.9 Max (0.429)
12 mm	330.0 (12.992)	1.5 (0.059)	13.0 ± 0.20 (0.512 ± 0.008)	20.2 (0.795)		12.4 +2.0, -0.0 (0.488 +0.078, -0.0)	18.4 (0.724)	11.9 Min (0.469) 15.4 Max (0.606)