



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.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

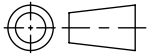
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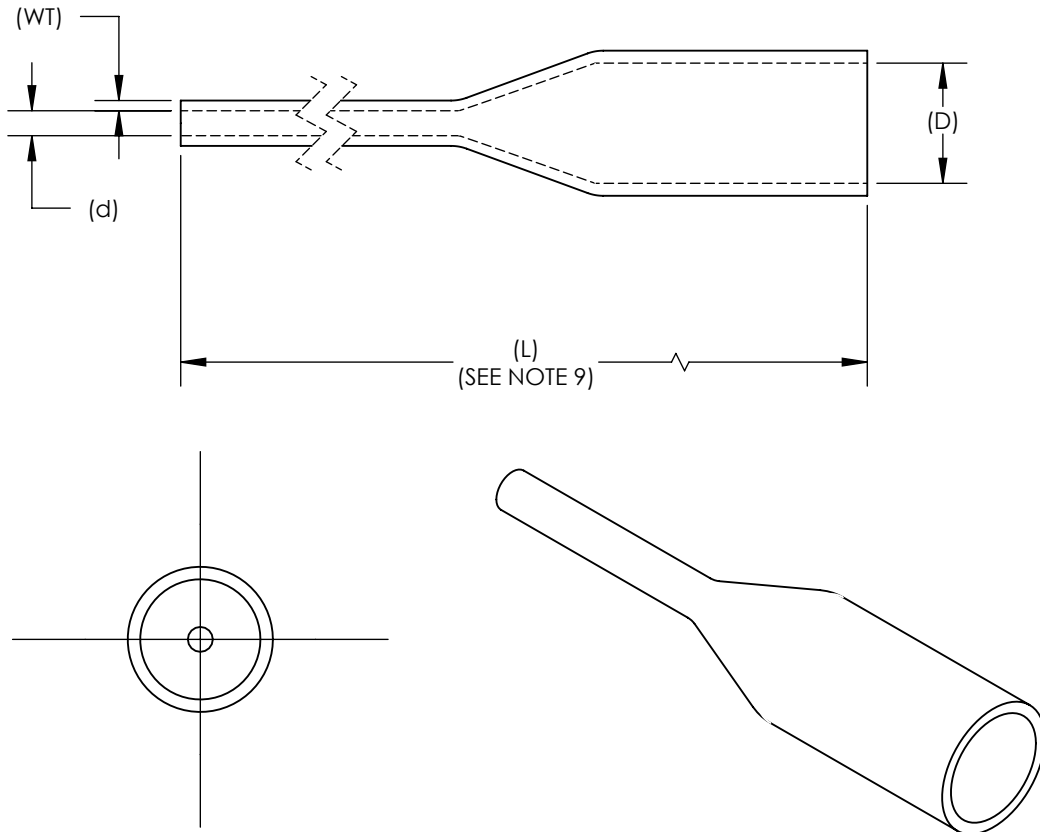
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SW2015



Revision level			Revision Record	Changed	Date	Approved	Date
Drawing	State	Part					
00.0	Design Release		SEE ECN# 013647	GRW	12/9/2016	KAC	12/9/2016



Type	Shrink Ratio	Nominal Trade Size	Supplied Diameter (D)		Recovered Diameter (d)		Wall Thickness Recovered (WT)		Color
		in	in	mm	in	mm	in	mm	
Mini Reels: 2:1 Thin Wall									
TFN21 1.6/0.8 CL	2:1	1/16	0.063	1.6	0.032	0.8	0.016	0.40	Clear
TFN21 1.6/0.8 BK	2:1	1/16	0.063	1.6	0.032	0.8	0.016	0.40	Black
TFN21 2.4/1.2 CL	2:1	3/32	0.094	2.4	0.047	1.2	0.019	0.48	Clear
TFN21 2.4/1.2 CL	2:1	3/32	0.094	2.4	0.047	1.2	0.019	0.48	Black
TFN21 3.2/1.6 CL	2:1	1/8	0.125	3.2	0.063	1.6	0.019	0.48	Clear
TFN21 3.2/1.6 RD	2:1	1/8	0.125	3.2	0.063	1.6	0.019	0.48	Red
TFN21 3.2/1.6 BU	2:1	1/8	0.125	3.2	0.063	1.6	0.019	0.48	Blue
TFN21 4.8/2.4 CL	2:1	3/16	0.188	4.8	0.094	2.4	0.019	0.48	Clear
TFN21 4.8/2.4 RD	2:1	3/16	0.188	4.8	0.094	2.4	0.019	0.48	Red
TFN21 4.8/2.4 BU	2:1	3/16	0.188	4.8	0.094	2.4	0.019	0.48	Blue
TFN21 6.4/3.2 CL	2:1	1/4	0.25	6.4	0.125	3.2	0.022	0.56	Clear
TFN21 6.4/3.2 RD	2:1	1/4	0.25	6.4	0.125	3.2	0.022	0.56	Red
TFN21 6.4/3.2 BU	2:1	1/4	0.25	6.4	0.125	3.2	0.022	0.56	Blue
TFN21 9.5/4.8 CL	2:1	3/8	0.375	9.5	0.188	4.8	0.024	0.62	Clear
TFN21 9.5/4.8 RD	2:1	3/8	0.375	9.5	0.188	4.8	0.024	0.62	Red
TFN21 9.5/4.8 BU	2:1	3/8	0.375	9.5	0.188	4.8	0.024	0.62	Blue
TFN21 12.7/6.4 CL	2:1	1/2	0.5	12.7	0.25	6.4	0.024	0.62	Clear
TFN21 12.7/6.4 RD	2:1	1/2	0.5	12.7	0.25	6.4	0.024	0.62	Red
TFN21 12.7/6.4 BU	2:1	1/2	0.5	12.7	0.25	6.4	0.024	0.62	Blue
TFN21 19.1/9.5 CL	2:1	3/4	0.75	19.1	0.38	9.5	0.027	0.68	Clear
TFN21 19.1/9.5 RD	2:1	3/4	0.75	19.1	0.38	9.5	0.027	0.68	Red
TFN21 19.1/9.5 BU	2:1	3/4	0.75	19.1	0.38	9.5	0.027	0.68	Blue
TFN21 25.4/12.7 CL	2:1	1	1	25.4	0.5	12.7	0.034	0.87	Clear
TFN21 25.4/12.7 RD	2:1	1	1	25.4	0.5	12.7	0.034	0.87	Red
TFN21 25.4/12.7 BU	2:1	1	1	25.4	0.5	12.7	0.034	0.87	Blue
Bulk Reels: 2:1 Thin Wall									
TFN21 3.2/1.6 BK	2:1	1/8	0.125	3.2	0.063	1.6	0.019	0.48	Black
TFN21 4.8/2.4 BK	2:1	3/16	0.188	4.8	0.094	2.4	0.019	0.48	Black
TFN21 6.4/3.2 BK	2:1	1/4	0.25	6.4	0.125	3.2	0.022	0.56	Black
TFN21 9.5/4.8 BK	2:1	3/8	0.375	9.5	0.188	4.8	0.024	0.62	Black
TFN21 12.7/6.4 BK	2:1	1/2	0.5	12.7	0.25	6.4	0.024	0.62	Black
TFN21 19.1/9.5 BK	2:1	3/4	0.75	19.1	0.38	9.5	0.027	0.68	Black
TFN21 25.4/12.7 BK	2:1	1	1	25.4	0.5	12.7	0.034	0.87	Black
TFN21 38.1/19.1 BK	2:1	1-1/2	1.5	38.1	0.75	19.1	0.039	1.00	Black
4 Foot Sticks: 2:1 Thin Wall									
TFN21-ST 2.4/1.2 BK	2:1	3/32	0.094	2.4	0.047	1.2	0.019	0.48	Black
TFN21-ST 3.2/1.6 BK	2:1	1/8	0.125	3.2	0.063	1.6	0.019	0.48	Black
TFN21-ST 4.8/2.4 BK	2:1	3/16	0.188	4.8	0.094	2.4	0.019	0.48	Black
TFN21-ST 6.4/3.2 BK	2:1	1/4	0.250	6.4	0.125	3.2	0.022	0.56	Black
TFN21-ST 9.5/4.8 BK	2:1	3/8	0.375	9.5	0.188	4.8	0.024	0.62	Black
TFN21-ST 12.7/6.4 BK	2:1	1/2	0.500	12.7	0.250	6.4	0.024	0.62	Black
TFN21-ST 19.1/9.5 BK	2:1	3/4	0.750	19.1	0.375	9.5	0.027	0.68	Black
TFN21-ST 25.4/12.7 BK	2:1	1	1.000	25.4	0.500	12.7	0.034	0.87	Black

- NOTES:**
- SHRINK RATIO 2:1
 - LONGITUDINAL CHANGE AFTER SHRINKAGE ± 5%
 - MINIMUM SHRINK TEMPERATURE 212° F (100° C)
 - OPERATING TEMPERATURES -67° F TO 275° F (-55° C TO 135° C)
 - DIELECTRIC STRENGTH >20KV/MM ACCORDING TO ASTM D 150
 - RoHS
 - FLAMMABILITY UL224 600V VW-1 (EXCEPT CLEAR)
 - MEETS SAE-AMS-DTL-23053/5 CLASS 1 & 3
 - CONSULT FACTORY OR WEBSITE FOR AVAILABLE LENGTHS

Material
POLYOLEFIN, CROSS LINKED

Units: **inches**
Dimension without tolerances details to:
.xxxx = ± .0005
.xxx = ± .005
.xx = ± .01
.x = ± .03
None = ± .06
∠ = ± 0.5°
Dimension Formatted in [mm]

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Drawn GRW 12/9/2016
Approved KAC 12/9/2016

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Article/Type-No TFN21 SERIES
Title **HEAT SHRINK TUBING, 2:1 SHRINK RATIO, NON-ADHESIVE THIN WALL**
Drawing-No PRODUCTION : Phase
16-1991-001-CSU

Scale
Project Number PRP 16-1991
Format AH
Sheet 1/1