

# PACKAGING FOR AUTOMATION

## RESISTOR NETWORKS AND CHIP ARRAYS

Model	Description	Tape Material	Capacity	TAPE & REEL		AMMO PACK		
				Reel Diameter (Inches)	How to Order Part # Example	Capacity	LxWxH (Inches)	How to Order Part # Example
<b>ECONOMICAL THICK FILM / THROUGH-HOLE</b>								
L-Series	Low Profile SIP	Paper				1,000	13 x 2.17 x 9.45	L101S103AP <sup>1</sup>
L-Series	Low Profile SIP	Paper				1,000	13 x 2.17 x 9.45	L101S103G3T <sup>5</sup>

<b>ECONOMICAL THICK FILM / SURFACE MOUNT</b>								
BCN-2D	Chip Network	Paper	5,000	7	BCN2D103J7			
BCN-4D	Chip Network	Plastic	4,000	7	BCN4D103J7			
BCN164A	Chip Network	Paper	5,000	7	BCN164A103J7			
BCN164AB	Chip Network	Paper	5,000	7	BCN164AB103J7			
BCN164ABI	Chip Network	Paper	5,000	7	BCN164ABI103J7			
BCN168R	Chip Network	Paper	5,000	7	BCN168RB103J7			
BCN168S	Chip Network	Paper	5,000	7	BCN168SB103J7			
BCN104	Chip Network	Paper	10,000	7	BCN104AB103J7			
BCN218	Chip Network	Plastic	4,000	7	BCN218SBI103J7			
BCN318RB	Chip Network	Plastic	4,000	7	BCN318RB103J7			
BCN318SB	Chip Network	Plastic	4,000	7	BCN318SB103J7			
BCN318RBI	Chip Network	Plastic	4,000	7	BCN318RBI103J7			
BCN318SBI	Chip Network	Plastic	4,000	7	BCN318SBI103J7			
BCN4DBI	Chip Network	Plastic	4,000	7	BCN4DBI103J7			
BSR	Surge Network	Plastic	4,000	7	BSR1400GE			
RC4	RC Chip Network	Paper	5,000	7	RC4101M101M7			
RC6	RC Chip Network	Plastic	4,000	7	RC6E101M101M7			
627	14 Pin .220" SOIC	Plastic	2,000	13	627A103TR4			
628	16 Pin .220" SOIC	Plastic	2,000	13	628A103TR4			



**PRECISION THIN FILM / SURFACE MOUNT**

664/TSN08	8 Pin .150" SOIC	Plastic	1,000	7	664-A-1001F7/TSN08A1001DS7
667/TSN14	14 Pin .150" SOIC	Plastic	500	7	667-A-1001F7/TSN14A1002FS7
668/TSN16	16 Pin .150" SOIC	Plastic	500	7	668-A-1001F7/TSN16A1001FP7
688/TSW16	16 Pin .300" SOIC	Plastic	500	7	688-A-1001F7/TSW16A1002GS7
NQS16/TQS16	16 Pin, QSOP	Plastic	1,000	7	NQS16B1002F7/TQS16B1002FS7
NQS20/TQS20	20 Pin, QSOP	Plastic	1,000	7	NQS20B1002F7/TQS20B1002FS7
NQS24/TQS24	24 Pin, QSOP	Plastic	1,000	7	NQS24B1002J7/TQS24B1002JS7

**A-3**



Dimensions: mm	A	B	C	D	E	F	G	H	I
L-Series <sup>1</sup> (AP)	21	16	12.7	6.35	9	18	25.4 <sup>2</sup>		
L-Series <sup>5</sup> (G3T)	24.45	19.5	12.7	6.35	9	18	38.1		
BCN-2D	4	3.5	4	2	1.75	8	1.1	1.8	1.8
BCN-4D/DBI	4	5.5	4	2	1.75	12	1.1	3.5	5.6
BCN 164A/AB/ABI	4	3.5	4	2	1.75	8	1.4	2.0	3.5
BCN 168RB/SB	4	3.5	4	2	1.75	8	1.4	2.0	3.5
BCN104AB	4	3.5	4	2	1.75	8	1.0	1.3	2.3
BCN218SBI	4	5.5	4	2	1.75	12	1.1	2.5	4.4
BCN318	4	5.5	4	2	1.75	12	1.0	3.4	6.6
BSR	4	5.5	4	2	1.75	12	1.0	3.4	6.6
RC6	4	5.5	4	2	1.75	12	1.0	3.4	6.6
RC4	4	3.5	4	2	1.75	8	1.0	2.0	3.5
627/628 <sup>4</sup>	12	11.5	4	2	1.75	24	6.5	8.13	10.21 <sup>3</sup>
664 <sup>4</sup> /TSN08	8	5.5	4	2	1.75	12	6.5	6.40	5.25
667 <sup>4</sup> /TSN14	8	7.5	4	2	1.75	16	8.0	6.40	9.00
668 <sup>4</sup> /TSN16	8	7.5	4	2	1.75	16	8.0	6.40	10.25
688 <sup>4</sup> /TSW16	12	11.5	4	2	1.75	24	12	10.50	10.75

<sup>1</sup> For Ammo Pack option - Model must be ordered with steel pins. All the leads attached to the tape.

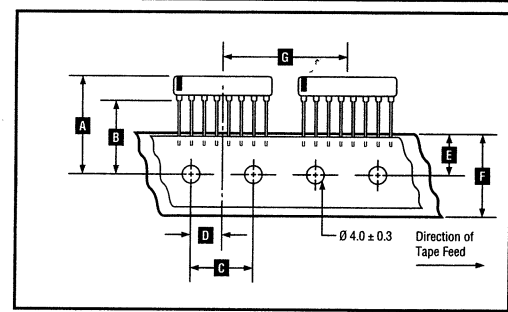
<sup>2</sup> L-Series with greater than 8 pins dimension 'G' = 38.1

<sup>3</sup> Model 628 dimension 'I' = 11.48

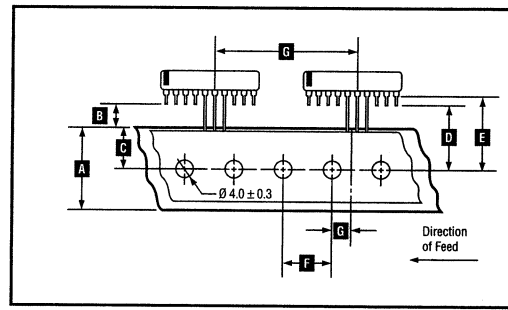
<sup>4</sup> Pin #1 positioned at sprocket hole side

<sup>5</sup> For Ammo Pack Option, model must be ordered with steel pins - 3 center leads attached to the tape

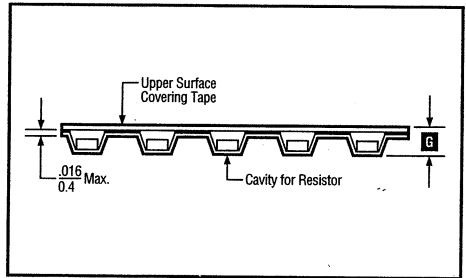
**L-SERIES AMMO PACK (AP)**



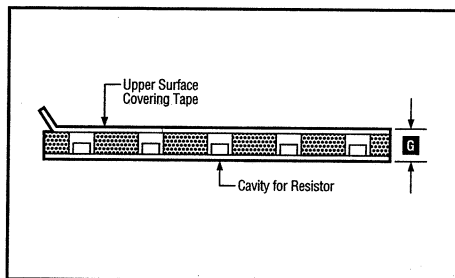
**L-SERIES AMMO PACK (G3T)**



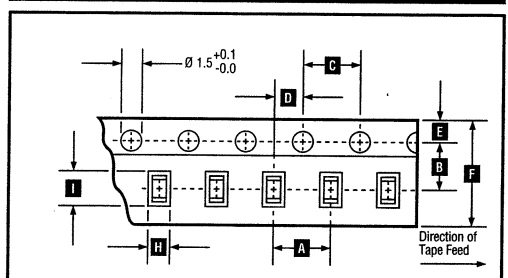
**PLASTIC TAPE (SIDE VIEW)**



**PAPER TAPE (SIDE VIEW)**



**PAPER & PLASTIC TAPE (TOP VIEW)**



Packaging per EIA RS-468 radial lead and EIA-481 surface mount configuration.

# PACKAGING FOR AUTOMATION

## RESISTOR NETWORKS

### MAGAZINE (ANTI-STATIC)

Model	Description	Capacity	LxWxH (Inches)	Tube Style	How to Order Part # Example
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#### ECONOMICAL THICK FILM / THROUGH-HOLE

		M1 Tube	M2 Tube			
L05	5 Pin Low Profile SIP	40	38	M1=22.8 x .15 x .52 M2=20 x .20 x .43	A (M1) B (M2)	L05-1C103-M1 or M2
L06	6 Pin Low Profile SIP	34	32			L06-1C103-M1 or M2
L07	7 Pin Low Profile SIP	29	27			L07-1C103-M1 or M2
L08	8 Pin Low Profile SIP	25	23			L08-1C103-M1 or M2
L09	9 Pin Low Profile SIP	23	21			L09-1C103-M1 or M2
L10	10 Pin Low Profile SIP	20	19			L10-1C103-M1 or M2
L11	11 Pin Low Profile SIP	19	17	L11-1C103-M1 or M2		
887	20 Pin DIP	20	22.25 x .6 x .483	C	887-1-R10K	
888	18 Pin DIP	20	19.75 x .6 x .483	C	888-1-R10K	
898	16 Pin DIP	25	22.25 x .6 x .483	C	898-1-R10K	
899	14 Pin DIP	25	19.75 x .6 x .483	C	899-1-R10K	

#### ECONOMICAL THICK FILM / SURFACE MOUNT

627	14 Pin .220" SOIC	50	20.5 x .425 x .15	D	627-B-103
628	16 Pin .220" SOIC	50	23 x .425 x .15	D	628-B-103

#### PRECISION THIN FILM / THROUGH-HOLE

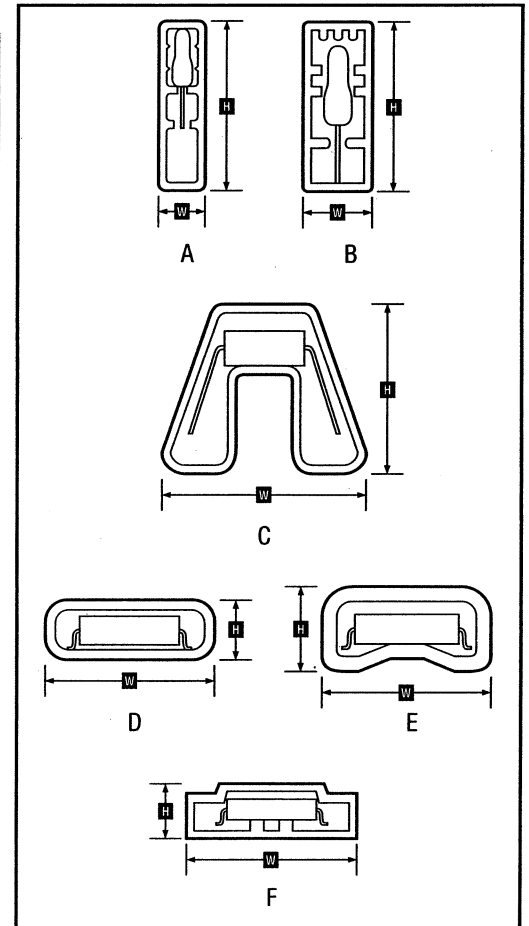
694/TPD08	8 Pin DIP	50	21 x .6 x .49	C	694-1-R10KF/TPD08A1002FS
698/TPD16	16 Pin DIP	25	21 x .6 x .49	C	698-1-R10KF/TPD16A1002JS
699/TPD14	14 Pin DIP	25	21 x .6 x .49	C	699-1-R10KF/TPD14A1002JS

#### PRECISION THIN FILM / SURFACE MOUNT

654	8 Pin RF Attenuator	100	20.5 x .310 x .150	E	654 2dB
664/TSN08	8 Pin .150" SOIC	100	20.5 x .310 x .150	E	664-B-1002F/TSN08A1002FS
667/TSN14	14 Pin .150" SOIC	50	18.0 x .310 x .150	E	667-B-1002F/TSN14A1002FS
668/TSN16	16 Pin .150" SOIC	50	20.0 x .310 x .150	E	668-B-1002F/TSN16A1002FS
688/TSW16	16 Pin .300" SOIC	50	21.5 x .580 x .185	F	688-B-1003F/TSW16A1002FS

All units oriented with pin #1 to the same side.

### MAGAZINE CROSS SECTION ILLUSTRATIONS

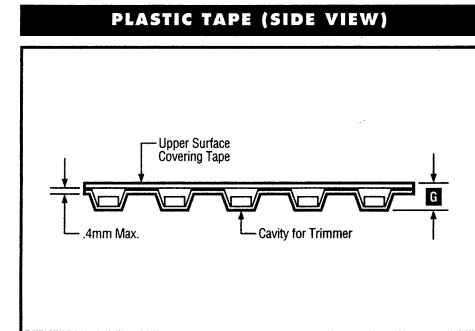
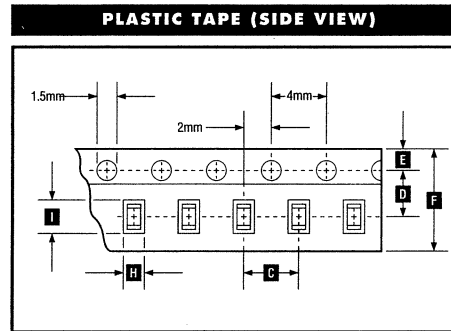
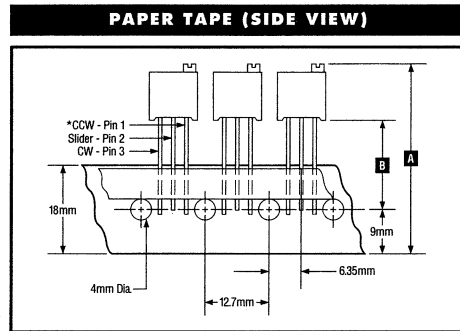


# PACKAGING FOR AUTOMATION

## TRIMMING POTENTIOMETERS

Model	Size	Tape Material	Available Pin Styles	Capacity	TAPE & REEL		AMMO PACK	
					Reel Diameter (Inches)	How to Order Part # Example	Box LxWxH (Inches)	How to Order Part # Example
<b>SINGLE TURN / THROUGH-HOLE</b>								
24	4mm Dia.	Paper	U	1,000	14	24UR10KTR		
25	1/4" Sq.	Paper	U, V	1,000	14	25UR10KTR	13.39 x 2 x 13.78	25UR10KAP
72	3/8" Sq.	Paper	RW	1,000	14	72RWFR10KTR	13 x 1.8 x 10	72RWFR10KAP
82	1/4" Dia.	Paper	W	1,000	14	82WFR10KTR	13 x 1.8 x 10	82WFR10KAP
<b>MULTI-TURN / THROUGH-HOLE</b>								
64	1/4" Sq.	Paper	Y, Z	1,000	14	64YFR10KTR	13 x 1.8 x 10	64YFR10KAP
66	3/8" Sq.	Paper	W, X	1,000	14	66WFR10KTR	13 x 1.8 x 10	66WFR10KAP
67	3/8" Sq.	Paper	W, X	1,000	14	67WFR10KTR	13 x 1.8 x 10	67WFR10KAP
68	3/8" Sq.	Paper	W, X	1,000	14	68WFR10KTR	13 x 1.8 x 10	68WFR10KAP
<b>SINGLE TURN / SURFACE MOUNT</b>								
21	4mm Chip	Plastic	W, X, Z	750	7	21WR10KTR		
22	3mm Chip	Plastic	A, B	1,000	7	22AR10KTR		
23	4mm Sq.	Plastic	A, B, S	A, B=500 S=750	7	23AR10KTR		
83	1/4" Sq.	Plastic	P	1,000	13	83PR10KTR		
<b>MULTI-TURN / SURFACE MOUNT</b>								
84	1/4" Sq.	Plastic	P	1,000	14	84PR10KTR		
44	4mm	Plastic	W,G,J	1,000	13	44 WR10KTR		

Radial lead packaging per EIA-RS-468 and surface mount per EIA-481



Direction of Feed → Pin #1 is initial pin out for both paper and plastic tape except models 24, 25, and 72 where pins 1 and 3 are reversed.

A-7

MODEL	Dimensions: mm	
	A	B
24	22.7	18
25	30	20
64	37.09	18.03
66/67/68	41.66	18.03
72	41.66	18.03
82	35.56	18.03

MODEL	Dimensions: mm						
	C	D	E	F	G	H	I
21	8	5.63	1.5	12	2.4	4.5	4.9
22	8	5.5	1.75	12	2.6	3.8	5.2
23A,B	8	5.5	1.75	12	3.2	5.4	7.2
23S	8	5.5	1.75	12	6.4	5.2	7
83	12	7.5	1.75	16	5.61	7.11	7.11
84W	16	11.5	1.75	24	8.89	13.2	14.8
84X	16	11.5	1.75	24	8.13	13.2	14.8
44W	12	7.5	1.75	16	5.46	7.36	7.87
44G,J	12	7.5	1.75	16	4.83	7.87	7.87

Metrix conversions  
1 Inch = 25.4mm

# PACKAGING FOR AUTOMATION

## TRIMMING POTENTIOMETERS

### MAGAZINE (ANTI-STATIC)

Model	Size	Available Pin Styles	Capacity	LxWxH (Inches)	Tube Style	How to Order Part # Example
<b>SINGLE TURN / THROUGH-HOLE</b>						
25	1/4" Sq.	U	70	19.7 x .33 x .59	A	25UR10KTB
		V	70	19.7 x .33 x .71	A	25VR10KTB
62	1/4" Dia.	M	100	27.18 x .344 x .645	C	62MR10KTB
		P	100	26.88 x .344 x .645	B	62PR10KTB
72	3/8" Sq.	P, PM	50	19.89 x .485 x .555	D	72PR10KTB
		RX, RXL ,RXW, X, XL, XW, RW	50	19.69 x .295 x .765	E	72XR10KTB
82	1/4" Dia.	M	100	26.88 x .344 x .585	C	82MR10KTB
		P	100	26.88 x .344 x .585	B	82PR10KTB
		PA	50	15.55 x .275 x .94	F	82PAR10KTB
		W	100	26.88 x .344 x .645	C	82WR10KTB
93	1/2" Dia.	P	50	26.08 x .585 x .84	N	93PR10KTB

<b>MULTI-TURN / THROUGH-HOLE</b>						
64	1/4" Sq.	P	50	14.43 x .446 x .542	H	64PR10K
		W	50	14.24 x .402 x .692	O	64WR10K
		X	50	16.34 x .402 x .692	O	64XR10K
		Y	50	14.24 x .356 x .692	P	64YR10K
		Z	50	16.34 x .356 x .692	P	64ZR10K
66	3/8" Sq.	P	50	20.9 x .565 x .66	G	66PR10KTB
		W	50	20.55 x .275 x .94	F	66WR10KTB
		X	50	24.4 x .275 x .94	F	66XR10KT
67	3/8" Sq.	P	50	20.9 x .565 x .66	G	67PR10KTB
		W, Y	50	20.55 x .275 x .94	F	67WR10KTB
		X, Z	50	24.4 x .275 x .94	F	67XR10KTB
68	3/8" Sq.	P	50	20.9 x .565 x .66	G	68PR10KTB
		W	100	20.4 x .325 x .905	F	68WR10KTB
		X	50	24.15 x .325 x .905	F	68XR10KTB
89	3/4" Rect.	P, PH, X, XH	25	21.16 x .28 x .655	I	89PR10KTB
		W, WH	25	21.16 x .28 x .66	J	89WR10KTB

**MAGAZINE (ANTI-STATIC)**

Model	Size	Available Pin Styles	Capacity	LxWxH (Inches)	Tube Style	How to Order Part # Example
<b>SINGLE TURN / SURFACE MOUNT</b>						
83	1/4" Sq.	Y	50	19.05 x .30 x .35	K	83YR10KTB
<b>MULTI-TURN / SURFACE MOUNT</b>						
84	1/4" Sq.	P	50	14.55 x .32 x .472	L	84PR10K
		W	50	14.55 x .377 x .472	M	84WR10K
		X	50	16.6 x .377 x .472	M	84XR10K

All units oriented with pin #1 to the same side.

**MAGAZINE CROSS SECTION ILLUSTRATIONS**

