

CRIMPED AND TRIMMED LEAD

Radial lead types can be supplied with combination preformed crimp and trimmed leads. This option is supplied to the dimensions shown.

*Seating plane interpretation per IEC-717

- To order this crimped and trimmed lead style, standard radial type model numbers are changed by replacing the model letter "ZA" with "ZC." This option is supplied in bulk only.

Example:

Standard Model	Order As
V18ZA3	V18ZC3

For crimped leads without trimming and any variations to the above, contact Littelfuse.

Dimension	V _{RMS} Voltage Model	5mm Size		7mm Size		10mm Size		14mm Size		20mm Size	
		Min. mm (in)	Max. mm (in)	Min. mm (in)	Max. mm (in)	Min. mm (in)	Max. mm (in)	Min. mm (in)	Max. mm (in)	Min. mm (in)	Max. mm (in)
A	All	-	10 (0.394)	-	12 (0.472)	-	16 (0.630)	-	20 (0.787)	-	26.5 (1.043)
ØD	All	-	7 (0.276)	-	9 (0.354)	-	12.5 (0.492)	-	17 (0.669)	-	23 (0.906)
e	All	4 (0.157)	6 (0.236)	4 (0.157)	6 (0.236)	6.5 (0.256)	8.5 (0.335)	6.5 (0.256)	8.5 (0.335)	6.5 (0.256) (Note 6)	8.5 (0.335) (Note 6)
e₁	V8ZAV56ZA	1 (0.039)	3 (0.118)	1 (0.039)	3 (0.118)	1 (0.039)	3 (0.118)	1 (0.039)	3 (0.118)	1 (0.039)	3 (0.118)
	V68ZAV100ZA	1.5 (0.059)	3.5 (0.138)	1.5 (0.059)	3.5 (0.138)	1.5 (0.059)	3.5 (0.138)	1.5 (0.059)	3.5 (0.138)	1.5 (0.059)	3.5 (0.138)
	V120ZAV180ZA	1 (0.039)	3 (0.118)	1 (0.039)	3 (0.118)	1 (0.039)	3 (0.118)	1 (0.038)	3 (0.118)	1 (0.038)	3 (0.118)
	V205ZAV750ZA	1.5 (0.059)	3.5 (0.138)	-	-	-	-	-	-	-	-
E	V8ZAV56ZA	-	5 (0.197)	-	5 (0.197)	-	5 (0.197)	-	5 (0.197)	-	5 (0.197)
	V68ZAV100ZA	-	5.6 (0.220)	-	5.6 (0.220)	-	5.6 (0.220)	-	5.6 (0.220)	-	5.6 (0.220)
	V120ZAV180ZA	-	5 (0.197)	-	5 (0.197)	-	5 (0.197)	-	5 (0.197)	-	5 (0.197)
	V205ZAV750ZA	-	5.6 (0.220)	-	-	-	-	-	-	-	-
Øb	All	0.585 (0.023)	0.685 (0.027)	0.585 (0.023)	0.685 (0.027)	0.76 (0.030)	0.86 (0.034)	0.76 (0.030)	0.86 (0.034)	0.76 (0.030)	0.86 (0.034)
A	All	-	13.0 (0.512)	-	15 (0.591)	-	19.5 (0.768)	-	22.5 (0.886)	-	29.0 (1.142)
L_{TRIM}	All	2.41 (0.095)	4.69 (0.185)	2.41 (0.095)	4.69 (0.185)	2.41 (0.095)	4.69 (0.185)	2.41 (0.095)	4.69 (0.185)	2.41 (0.095)	4.69 (0.185)

NOTES: Dimensions in millimeters, inches in parentheses.

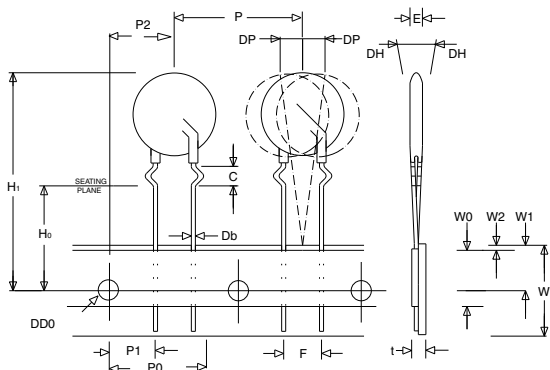
6. 10mm ALSO AVAILABLE; see additional lead style options.

7. V24ZA50(P) and V24ZC50(P) only supplied with lead spacing of 6.35mm +/-0.5mm (0.25 +/-0.0196) Dimension e = 5.85 min. Does not apply to T&R parts.

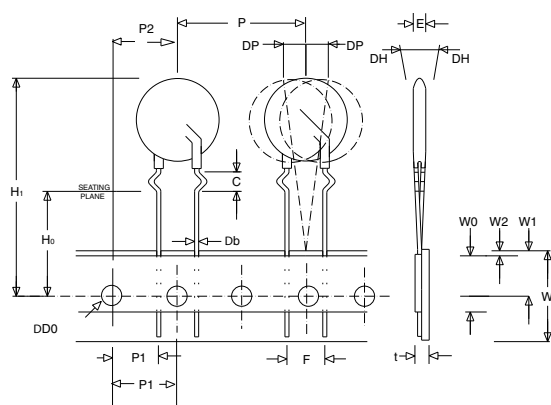
5 and 7mm Devices

10, 14 and 20mm Devices

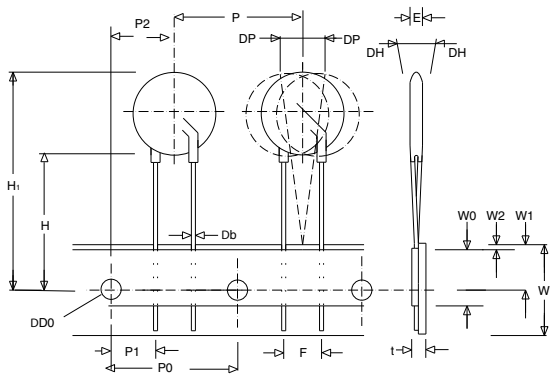
CRIMPED LEADS "ZT"



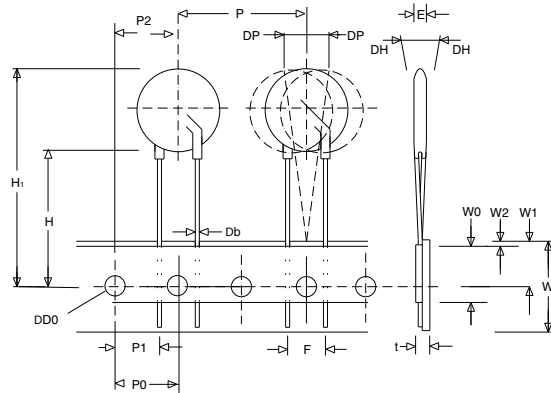
CRIMPED LEADS "ZT"



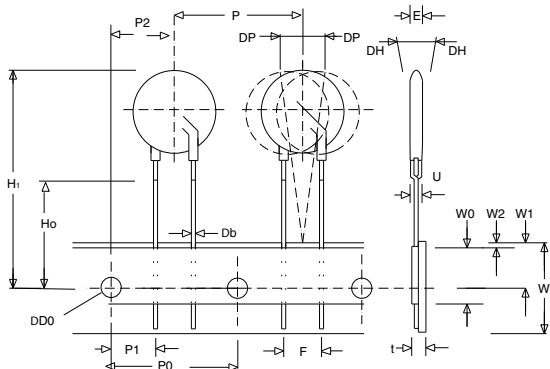
STRAIGHT LEADS "ZS"



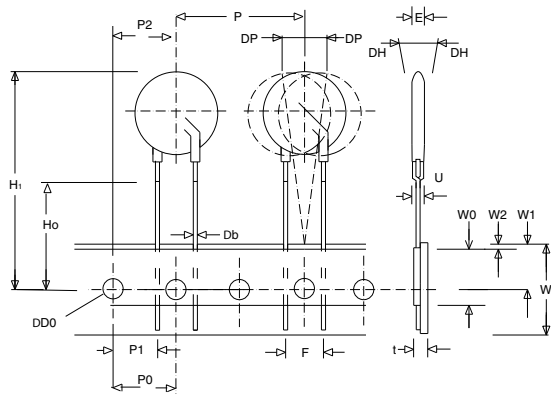
STRAIGHT LEADS "ZS"



UNDER CRIMPED LEADS "ZU"



UNDER CRIMPED LEADS "ZU"



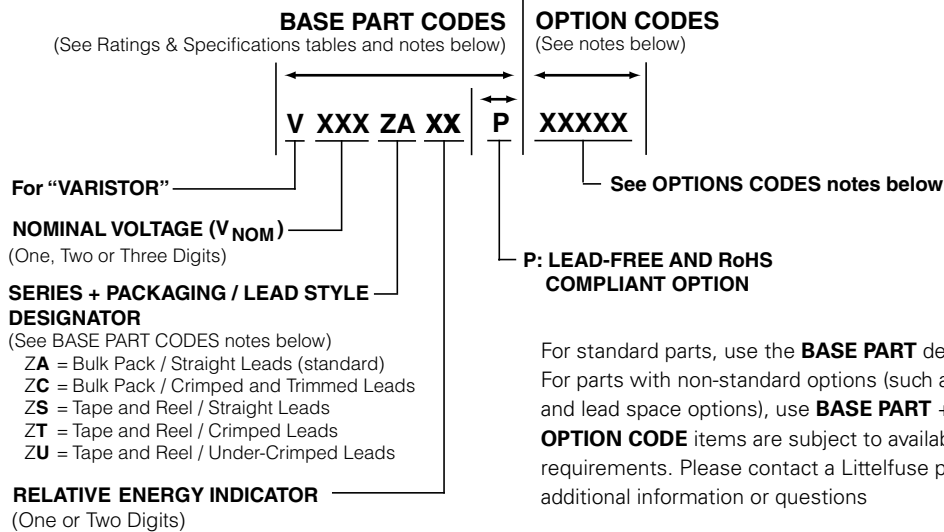
ZA Series

Tape and Reel Specifications

- Conforms to ANSI and EIA specifications
- Can be supplied to IEC Publication 286-2
- Radial devices on tape are supplied with crimped leads, straight leads, or under-crimped leads
- 5mm parts are available on tape and reel up to 385 VAC only

NOTE: Leads are offset by Dim e1

SYMBOL	DESCRIPTION	MODEL SIZE				
		5mm	7mm	10mm	14mm	20mm
P	Pitch of Component	12.7 +/- 1.0	12.7 +/- 1.0	25.4 +/- 1.0	25.4 +/- 1.0	25.4 +/- 1.0
P₀	Feed Hole Pitch	12.7 +/- 0.2	12.7 +/- 0.2	12.7 +/- 0.2	12.7 +/- 0.2	12.7 +/- 0.2
P₁	Feed Hole Center to Pitch	3.85 +/- 0.7	3.85 +/- 0.7	8.85 +/- 0.7	8.85 +/- 0.7	8.85 +/- 0.7
P₂	Hole Center to Component Center	6.35 +/- 1.0	6.35 +/- 1.0	12.7 +/- 0.7	12.7 +/- 0.7	12.7 +/- 0.7
F	Lead to Lead Distance	5.0 +/- 1.0	5.0 +/- 1.0	7.5 +/- 1.0	7.5 +/- 1.0	7.5 +/- 1.0
h	Component Alignment	2.0 Max	2.0 Max	2.0 Max	2.0 Max	2.0 Max
W	Tape Width	18.0 +1.0 / -0.5	18.0 +1.0 / -0.5	18.0 +1.0 / -0.5	18.0 +1.0 / -0.5	18.0 +1.0 / -0.5
W₀	Hold Down Tape Width	12.0 +/- 0.3	12.0 +/- 0.3	12.0 +/- 0.3	12.0 +/- 0.3	12.0 +/- 0.3
W₁	Hole Position	9.0 +0.75 / -0.50	9.0 +0.75 / -0.50	9.0 +0.75 / -0.50	9.0 +0.75 / -0.50	9.0 +0.75 / -0.50
W₂	Hold Down Tape Position	0.5 Max	0.5 Max	0.5 Max	0.5 Max	0.5 Max
H	Height from Tape Center to Component Base	18.0 +2.0 / -0.0	18.0 +2.0 / -0.0	18.0 +2.0 / -0.0	18.0 +2.0 / -0.0	18.0 +2.0 / -0.0
H₀	Seating Plane Height	16.0 +/- 0.5	16.0 +/- 0.5	16.0 +/- 0.5	16.0 +/- 0.5	16.0 +/- 0.5
H₁	Component Height	29.0 Max	32.0 Max	36.0 Max	40.0 Max	46.5 Max
D₀	Feed Hole Diameter	4.0 +/- 0.2	4.0 +/- 0.2	4.0 +/- 0.2	4.0 +/- 0.2	4.0 +/- 0.2
t	Total Tape Thickness	0.7 +/- 0.2	0.7 +/- 0.2	0.7 +/- 0.2	0.7 +/- 0.2	0.7 +/- 0.2
U	Undercrimp Width	8.0 Max	8.0 Max	8.0 Max	8.0 Max	8.0 Max
p	Component Alignment	3° Max	3° Max	3° Max	3° Max	3° Max



Ordering Notes:

BASE PART CODES:

Series + Packaging / Lead Style Designators:

Ordering examples:

Straight Lead Bulk Pack (standard)	Straight Lead Tape & Reel	Crimped Lead Tape & Reel	Crimped & Trimmed Lead Bulk Pack	Under-Crimp Lead Tape & Reel
V18 ZA 3	V18 ZS 3	V18 ZT 3	V18 ZC 3	V18 ZU 3

Crimped lead ZA Series varistors are supplied standard in tape and reel, denoted with "ZT."

"ZC" style is supplied in bulk only.

"ZU" style is supplied in tape and reel only.

For crimped leads without trimming and any variations other than that described above, please contact Littelfuse.

Lead-free / RoHS Designator:

For Lead-free and RoHS compliant parts add "P" after the BASE PART number and before any other OPTION CODE:

Standard Model	Order As
V18ZA40	V18ZA40 P

Standard Model with Option	Order As
V18ZA40X10	V18ZA40 P X10

OPTION CODES:

X10: 10MM LEAD SPACING OPTION –

For 10 (-/+1)mm lead spacing (available on 20mm diameter models only), append standard model BASE PART number with "X10." Example:

Standard Model	Order As
V18ZA40	V18ZA40 X10

X2855: Nickel Barrier COATED WIRE OPTION –

All standard parts use Tin-Coated Copper wire. Nickel Barrier Coated wire is available as an option, consisting of Copper wire with a flashing of Nickel followed by a top coating of Tin. To order append standard model BASE PART number with "X2855." Example:

Standard Model	Order As
V18ZA40	V18ZA40 X2855

TAPE & REEL QUANTITIES:

Littelfuse ZA Series varistors are shipped standard in bulk pack with straight leads and lead spacing outlined in the Package Dimensions section of this data sheet. Contact your Littelfuse sales representative to discuss non-standard options.

Device Size	Voltage	Quantity Per Reel		
		"S" Reel	"T" Reel	"U" Reel
5mm	All	1000	1000	1000
7mm	All	1000	1000	1000
10mm	All	500	500	500
14mm	< 300V	500	500	500
20mm	< 300V	500	500	400