

Surface Mount Varistors - Molded Chip Type Transient/Surge Absorber

FEATURES

- Compact package withstands high surge current (up to 600A).
- Low clamping voltage for better surge protection.
- Excellent response against steep surge voltages.
- Both flow and reflow soldering applicable.

CHARACTERISTICS

- Temperature coefficient of varistor voltage: 0~0.05%/°C (+25 to +85°C).
- Operating temperature range: -40~+85°C.
- Storage temperature range: -40~+125°C.
- Working voltage (max.): measured at 100µA leakage current.

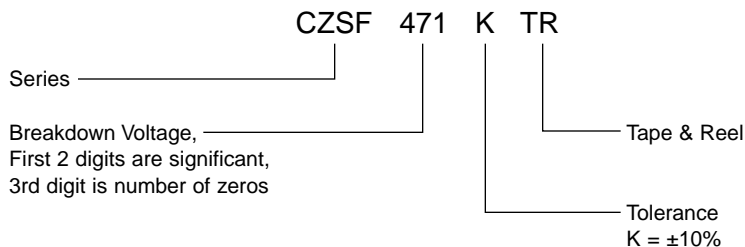
Unit - mm

L	W	H	P	a
8.0±0.5	6.2±0.4	3.2±0.3	1.3±0.3	2.5±0.2

STANDARD PRODUCT TABLE AND SPECIFICATIONS

Part Number	Working Voltage (max)		Breakdown Voltage @ 1.0mA	Clamping Voltage Max. @ 8/20 mS	Peak Current (max) 8/20µS, 2 times	Transient Energy Joules (max)	Typ. Capacitance (pF) @ 1Khz
	ACrms	DC					
CZSF220KTR	14 V	18 V	20 ~ 25 V	43 V (2.5 A)	125 A	0.9	1700
CZSF270KTR	17 V	22 V	24 ~ 30 V	53 V (2.5 A)	125 A	1.0	1500
CZSF330KTR	20 V	26 V	30 ~ 36 V	65 V (2.5 A)	125 A	1.2	1200
CZSF390KTR	25 V	31 V	35 ~ 43 V	77 V (2.5 A)	125 A	1.5	1100
CZSF470KTR	30 V	38 V	42 ~ 52 V	93 V (2.5 A)	125 A	1.8	1000
CZSF560KTR	35 V	45 V	50 ~ 62 V	110 V (2.5 A)	125 A	2.2	850
CZSF680KTR	40 V	56 V	61 ~ 75 V	135 V (2.5 A)	125 A	2.5	725
CZSF820KTR	50 V	65 V	74 ~ 90 V	135 V (10 A)	600 A	3.5	500
CZSF101KTR	60 V	85 V	90 ~ 110 V	165 V (10 A)	600 A	4.0	420
CZSF121KTR	75 V	100 V	108 ~ 132 V	200 V (10 A)	600 A	5.0	330
CZSF151KTR	95 V	125 V	135 ~ 165 V	250 V (10 A)	600 A	6.0	230
CZSF201KTR	130 V	170 V	185 ~ 225 V	340 V (10 A)	600 A	8.0	140
CZSF221KTR	140 V	180 V	198 ~ 242 V	360 V (10 A)	600 A	9.0	135
CZSF241KTR	150 V	200 V	216 ~ 264 V	395 V (10 A)	600 A	10.0	120
CZSF271KTR	175 V	225 V	247 ~ 303 V	455 V (10 A)	600 A	12.0	105
CZSF361KTR	230 V	300 V	324 ~ 396 V	595 V (10 A)	400 A	12.0	85
CZSF391KTR	250 V	320 V	351 ~ 429 V	650 V (10 A)	400 A	12.0	65
CZSF431KTR	275 V	350 V	387 ~ 473 V	710 V (10 A)	400 A	14.0	75
CZSF471KTR	300 V	385 V	423 ~ 517 V	775 V (10 A)	400 A	14.0	55

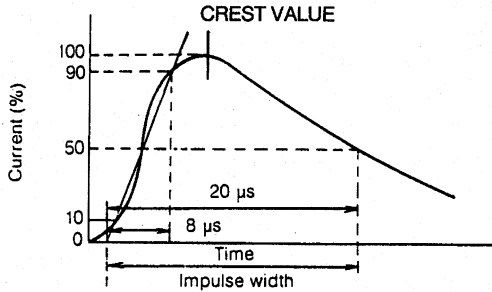
ORDERING CODE



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ENVIRONMENTAL CHARACTERISTICS

- Standard Impulse Wave Form (8/20 μ S)



BREAKDOWN VOLTAGE

22 to 68 V
82 to 270 V
360 to 470 V

SURGE CURRENT

18 Amps
50 Amps
40 Amps

- Surge Life - after 10,000 times continuous application of the surge impulse wave form shown above within the interval of 10 seconds at room temperature, breakdown voltage shall be within range specified.
- High temperature Load Life - after 1,000 hours at 85°C with application of the specified max. working voltage, breakdown voltage shall be within range specified.
- Humidity Load Life - after 1,000 hours at 40°C and 90 to 95% RH with application of the specified max. working voltage, breakdown voltage shall be within range specified.

1. Recommended Soldering Conditions

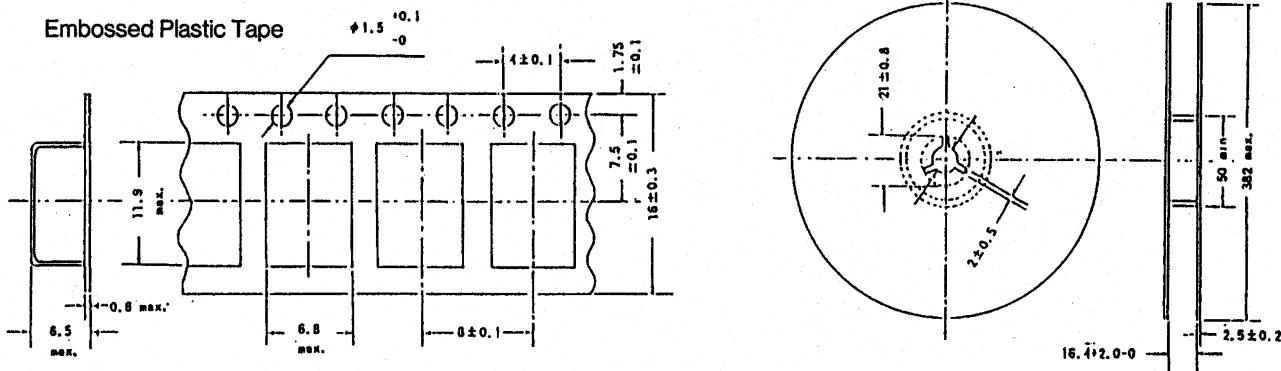
- 1.1 Flow soldering: 260°C (5 seconds max.)
- 1.2 Reflow soldering: 230°C (10 seconds max.)

2. Mounting

- 2.1 Pressure to the component at pick and place should be less than 9.8N.
- 2.2 The bottom of resin portion of component should be fixed to circuit board by adhesive.

TAPING SPECIFICATIONS

Reel : 2,000 pcs/Reel



RECOMMENDED LAND PATTERN

