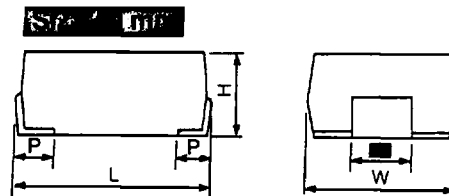


## MOLDED CHIP TYPE TRANSIENT/SURGE ABSORBER

### 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



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

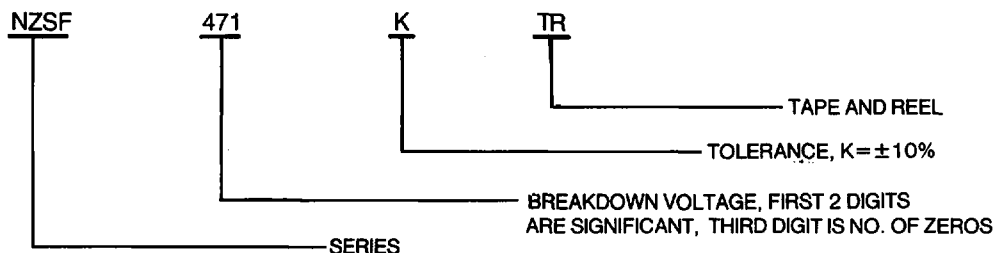
### STANDARD PRODUCT TABLE AND SPECIFICATIONS

PART NO.	WORKING VOLTAGE (MAX)		BREAKDOWN VOLTAGE	CLAMPING VOLTAGE	PEAK CURRENT (max)	TRANSIENT ENERGY	TYP. CAPACITANCE
	ACrms	DC	@ 1.0 mA	MAX @ 8/20 mS	8/20 μS, 2 Times	Joules (max)	(pF) @ 1Khz
NZSF220KTR	14 V	18 V	20 ~ 25 V	43 V (2.5 A)	125 A	0.9	1700
NZSF270KTR	17 V	22 V	24 ~ 30 V	53 V (2.5 A)	125 A	1.0	1500
NZSF330KTR	20 V	26 V	30 ~ 36 V	65 V (2.5 A)	125 A	1.2	1200
NZSF390KTR	25 V	31 V	35 ~ 43 V	77 V (2.5 A)	125 A	1.5	1100
NZSF470KTR	30 V	38 V	42 ~ 52 V	93 V (2.5 A)	125 A	1.8	1000
NZSF560KTR	35 V	45 V	50 ~ 62 V	110 V (2.5 A)	125 A	2.2	850
NZSF680KTR	40 V	56 V	61 ~ 75 V	135 V (2.5 A)	125 A	2.5	725
NZSF820KTR	50 V	65 V	74 ~ 90 V	135 V (10 A)	600 A	3.5	500
NZSF101KTR	60 V	85 V	90 ~ 110 V	165 V (10 A)	600 A	4.0	420
NZSF121KTR	75 V	100 V	108 ~ 132 V	200 V (10 A)	600 A	5.0	330
NZSF151KTR	95 V	125 V	135 ~ 165 V	250 V (10 A)	600 A	6.0	230
NZSF201KTR	130 V	170 V	185 ~ 225 V	340 V (10 A)	600 A	8.0	140
NZSF221KTR	140 V	180 V	198 ~ 242 V	360 V (10 A)	600 A	9.0	135
NZSF241KTR	150 V	200 V	216 ~ 264 V	395 V (10 A)	600 A	10.0	120
NZSF271KTR	175 V	225 V	247 ~ 303 V	455 V (10 A)	600 A	12.0	105
NZSF361KTR	230 V	300 V	324 ~ 396 V	595 V (10 A)	400 A	12.0	85
NZSF391KTR	250 V	320 V	351 ~ 429 V	650 V (10 A)	400 A	12.0	65
NZSF431KTR	275 V	350 V	387 ~ 473 V	710 V (10 A)	400 A	14.0	75
NZSF471KTR	300 V	385 V	423 ~ 517 V	775 V (10 A)	400 A	14.0	55

### CHARACTERISTICS:

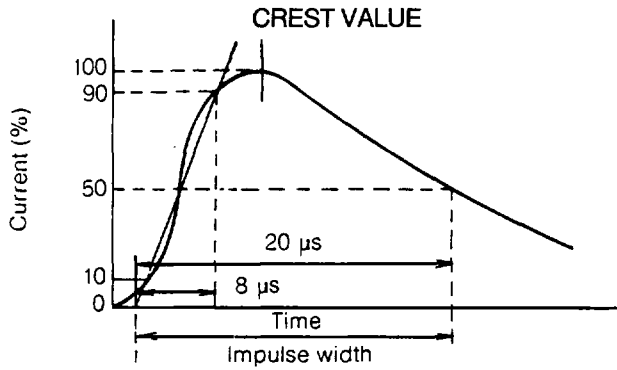
- TEMPERATURE COEFFICIENT OF VARISTOR VOLTAGE: 0 ~ -0.05% / °C (+25 to +85°C)
- OPERATING TEMPERATURE RANGE: -40 ~ +85°C.
- STORAGE TEMPERATURE RANGE: -40 ~ +125°C.
- WORKING VOLTAGE (max.): MEASURED AT 100μA LEAKAGE CURRENT

PART NUMBERING SYSTEM: (SEE PRODUCT TABLE)



## ENVIRONMENTAL CHARACTERISTICS:

- STANDARD IMPULSE WAVE FORM (8/20  $\mu$ S)



- 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.

## BREAKDOWN VOLTAGE

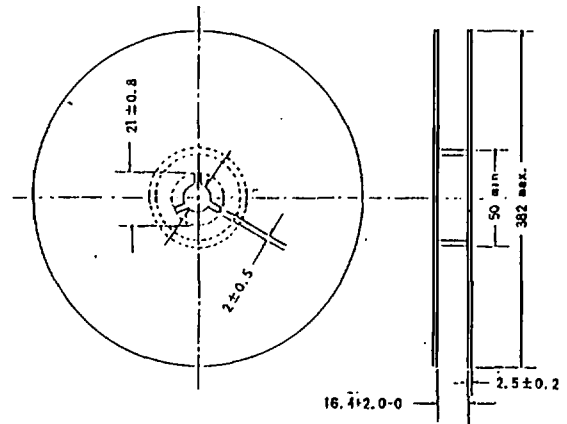
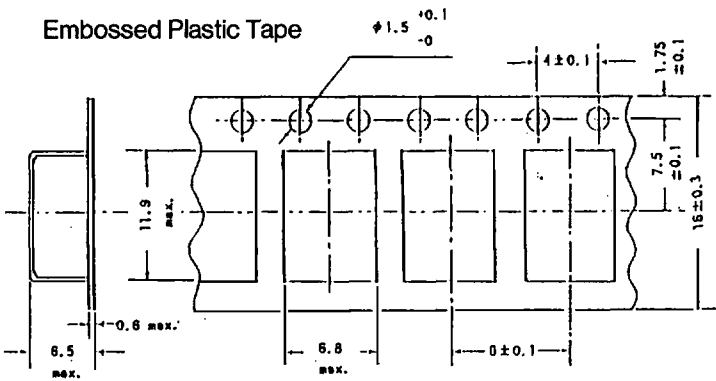
22 to 68V  
82 to 270V  
360 to 470V

## SURGE CURRENT

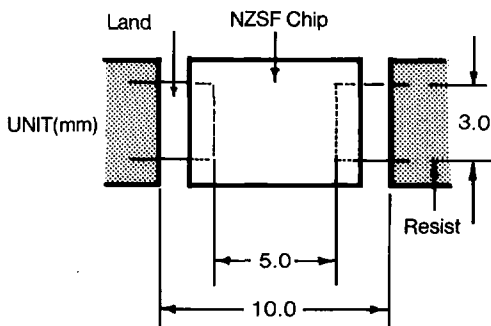
18 Amps  
50 Amps  
40 Amps

## TAPING SPECIFICATIONS

Reel : 2,000 pcs/Reel



## RECOMMENDED LAND PATTERN



### 1. Recommended soldering conditions

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

### 2. Mounting

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