

# Ceramic RF Devices

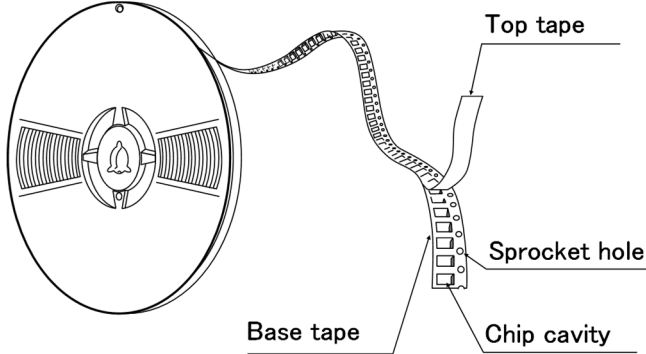
## PACKAGING

### ① Minimum Quantity

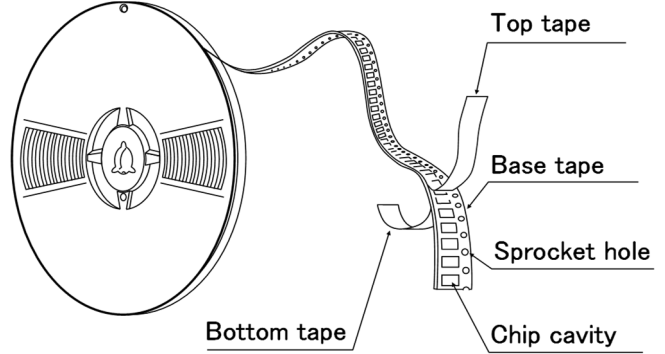
Type	L × W × T	Embossed tape / Paper tape [pcs]
TSD1N21A	2.0 × 1.25 × 1.0	3000
TST1N22D	2.5 × 2.0 × 1.0	
TSB1N18F	1.6 × 0.8 × 0.5	4000
TSB1N18D	1.6 × 0.8 × 0.65	
TSB1N21D	2.0 × 1.25 × 0.65	5000
TSC1N18D	1.6 × 0.8 × 0.65	
TSD1N21C	2.0 × 1.25 × 0.7	
TSD1N18B	1.6 × 0.8 × 0.8	
TSD1N18D	1.6 × 0.8 × 0.65	
TSH1N18D	1.6 × 0.8 × 0.65	
TSC4N18F	1.6 × 0.8 × 0.5	8000
TSB1N15H	1.0 × 0.5 × 0.4	10000
TSD1N15H	1.0 × 0.5 × 0.4	
TSL1M15H	1.0 × 0.5 × 0.4	

### ② Tape Material

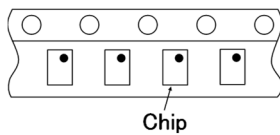
#### ● Embossed Tape



#### ● Card Board Carrier Tape



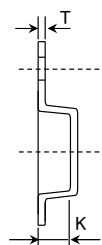
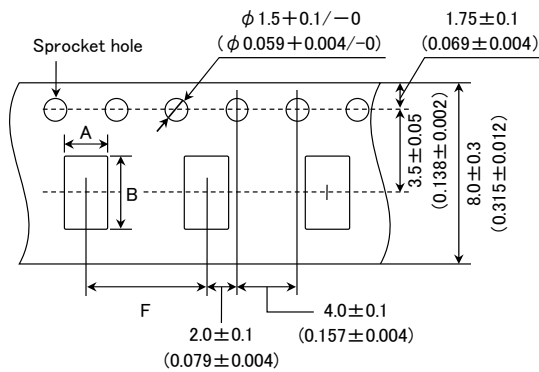
#### Chip Filled



### ③ Taping Dimensions

#### ● Embossed tape 0.315 inches wide

Unit: mm (inch)

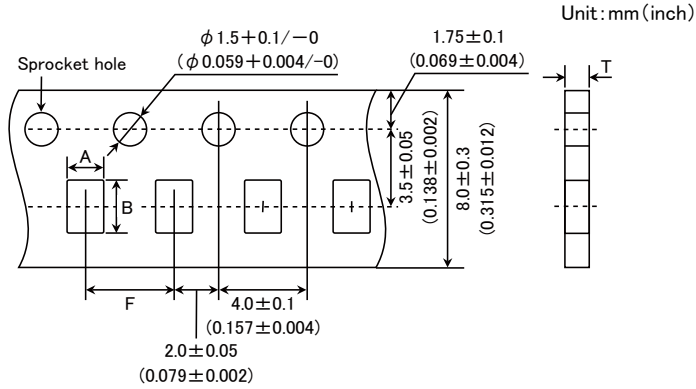


▶ This catalog contains the typical specification only due to the limitation of space. When you consider the purchase of our products, please check our specification. For details of each product (characteristics graph, reliability information, precautions for use, and so on), see our Web site (<http://www.ty-top.com/>).

Type	Chip cavity		Insertion Pitch	Tape Thickness max.	
	A	B		K	T
TSB1N21D	1.45±0.2 (0.057±0.008)	2.25±0.2 (0.089±0.008)	4.0±0.1 (0.157±0.004)	0.95 Max (0.037 Max)	0.3 (0.012)
TSD1N21A	1.45±0.2 (0.057±0.008)	2.25±0.2 (0.089±0.008)	4.0±0.1 (0.157±0.004)	1.1 Max (0.043 Max)	0.3 (0.012)
TSD1N21C	1.45±0.2 (0.057±0.008)	2.25±0.2 (0.089±0.008)	4.0±0.1 (0.157±0.004)	0.95 Max (0.037 Max)	0.3 (0.012)
TDT1N22D	2.3±0.1 (0.091±0.004)	2.7±0.1 (0.106±0.004)	4.0±0.1 (0.157±0.004)	0.9 Max (0.035 Max)	0.35 Max (0.014)

Unit: mm (inch)

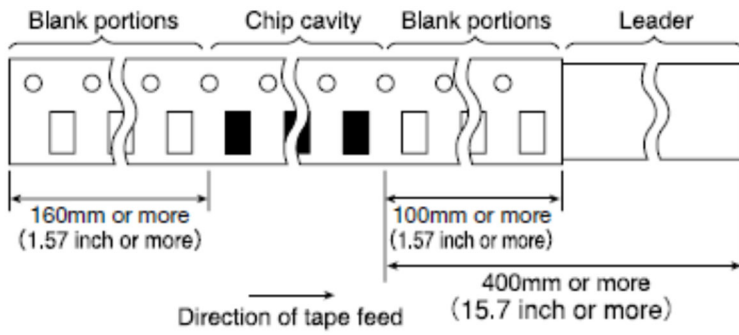
● Paper tape 0.315 inches wide



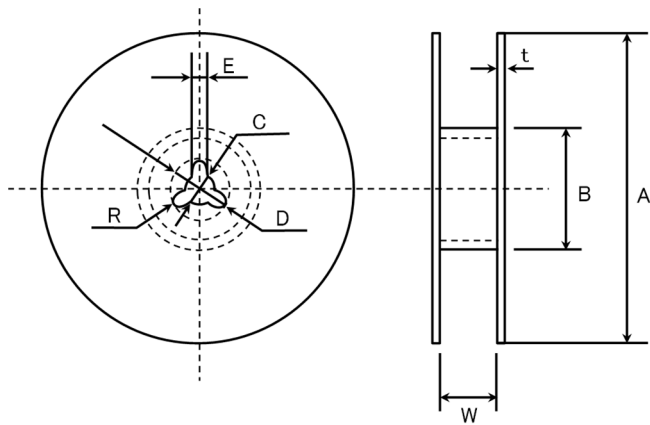
Type	Chip cavity		Insertion Pitch	Tape Thickness max.
	A	B		
TSB1N18F	1.00±0.05 (0.039±0.002)	1.80±0.05 (0.071±0.002)	4.0±0.1 (0.157±0.004)	0.55 (0.022)
TSC4N18F	1.00±0.05 (0.039±0.002)	1.80±0.05 (0.071±0.002)	4.0±0.1 (0.157±0.004)	0.55 (0.022)
TSB1N18D	0.95±0.05 (0.037±0.002)	1.80±0.05 (0.071±0.002)	4.0±0.1 (0.157±0.004)	0.80 (0.031)
TSC1N18D	0.95±0.05 (0.037±0.002)	1.80±0.05 (0.071±0.002)	4.0±0.1 (0.157±0.004)	0.55 (0.022)
TSD1N18D	0.95±0.05 (0.037±0.002)	1.80±0.05 (0.071±0.002)	4.0±0.1 (0.157±0.004)	0.90 (0.035)
TSD1N18D	0.95±0.05 (0.037±0.002)	1.80±0.05 (0.071±0.002)	4.0±0.1 (0.157±0.004)	0.80 (0.031)
TSH1N18D	0.95±0.05 (0.037±0.002)	1.80±0.05 (0.071±0.002)	4.0±0.1 (0.157±0.004)	0.80 (0.031)
TSL1N18D	0.95±0.05 (0.037±0.002)	1.80±0.05 (0.071±0.002)	4.0±0.1 (0.157±0.004)	0.80 (0.031)
TSB1N15H	0.62±0.03 (0.024±0.001)	1.12±0.03 (0.044±0.001)	2.0±0.05 (0.079±0.002)	0.45 (0.018)
TSD1N15H	0.62±0.03 (0.024±0.001)	1.12±0.03 (0.044±0.001)	2.0±0.05 (0.079±0.002)	0.45 (0.018)
TSL1M15H	0.62±0.03 (0.024±0.001)	1.12±0.03 (0.044±0.001)	2.0±0.05 (0.079±0.002)	0.45 (0.018)

Unit: mm (inch)

#### ④ Leader and Blank Portion



#### ⑤ Reel size



A	B	C	D	E	R
$\phi 178 \pm 2.0$ ( $\phi 7.01 \pm 0.079$ )	$\phi 50 \text{ min.}$ ( $\phi 1.97 \text{ min.}$ )	$\phi 13.0 \pm 0.2$ ( $\phi 0.512 \pm 0.008$ )	$\phi 21.0 \pm 0.8$ ( $\phi 0.827 \pm 0.031$ )	$2.0 \pm 0.5$ ( $0.079 \pm 0.020$ )	1.0
	t	W			
8mm width tape (0.315 inches width)	2.5max. (0.098max.)	$10 \pm 1.5$ ( $0.394 \pm 0.059$ )			

Unit: mm (inch)

#### ⑥ Top Tape Strength

The top tape requires a peel-off force of 0.1~0.7N in the direction of the arrow as illustrated below.

