

## General Purpose Snap-in Radial Electrolytic Capacitor

### Features

- Radial leads, cylindrical aluminum case
- Snap-in terminal
- Lifetime: 2000 hours at 85°C
- Large ripple current
- RoHS compliant



### Specification

Description		Value															Conditions	
Operation Temperature Range		-40 ~ +85°C							-25 ~ +85°C									
Rated Voltage Range(WV)		6.3 ~ 100VDC							160 ~ 450VDC									
Rated Capacitance Range		820 ~ 120000µF							56 ~ 2200µF									
Capacitance Tolerance		±20%															at 120Hz, 20 °C	
Max. Leakage Current at 20°C		≤0.02CV or 3mA, whichever is smaller. (I= Leakage Current(µA), C=Nominal Capacitance(µF), V=Rated Voltage(V))															After 5 minutes applied Rated Voltage	
Max. Dissipation Factor tan δ		0.60	0.55		0.45	0.35	0.30	0.25			0.15					0.20	at 20°C, 120Hz	
Working Voltage Range (WV)		6.3	10	16	25	35	50	63	80	100	160	180	200	250	350	400	450	
Surge Voltage (V)		8	13	20	32	44	63	79	100	125	200	225	250	300	400	450	500	at 20°C
Low Temperature Stability Impedance Ratio at 120Hz		3		3	3	2	2	4					8	Z(-25°C)/ Z(+20°C)				
		12		10	8	6	5	---					---	Z(-40°C)/ Z(+20°C)				
Load Life	Cap. Change	Within ±20% of the initial value															After 2000 Hours applied Rated Voltage at 85°C	
	Dissipation Factor	200% or less of initial specified value																
	Leakage Current	Less of initial specified value																
Shelf Life		Shall meet the same requirement as load life test															After 1000 Hours at 85° C without voltage applied	

# Large Can General Purpose Aluminum Caps

## TES Series

### Case Size ( $\phi$ D X L (mm)) & Rated Ripple Current (RC (Arms)/120Hz, 85°C)

Capacitance ( $\mu$ F)	Rated Voltage							
	6.3(8)		10(13)		16(20)		25(32)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
5600							22x25	2.20
6800							22x30	2.40
							25x25	2.45
8200					22x25	2.60	22x35	2.70
							25x25	2.75
10000					22x30	2.70	22x40	3.10
					25x25	2.75	25x30	3.15
							30x25	3.20
12000			22x25	2.40	22x30	2.90	22x45	3.50
					25x25	2.95	25x35	3.45
							30x30	3.50
							35x25	3.55
15000	22x25	2.44	22x30	2.75	22x35	3.30	22x50	4.00
			25x25	2.75	25x30	3.45	25x40	3.95
					30x25	3.50	30x35	4.00
							35x30	4.05
18000	22x30	2.60	22x35	3.15	22x40	3.70	25x45	4.45
	25x25	2.62	25x25	3.05	25x35	3.75	30x35	4.45
					30x30	3.80	35x30	4.60
22000	22x30	3.06	22x40	3.55	22x50	4.35	30x40	5.20
	25x25	3.07	25x30	3.50	25x40	4.30	35x35	5.15
			30x25	3.55	30x30	4.25	30x45	5.95
					35x25	4.20	35x40	5.90
27000	22x35	3.49	22x45	4.05	25x45	4.70		
	25x30	3.52	25x35	4.00	30x35	4.65	30x50	6.70
	30x25	3.57	30x30	4.05	35x30	4.65	35x45	6.75
33000	22x40	3.97	22x50	4.60	30x40	5.35		
	25x35	4.02	25x40	4.55	35x30	5.40		
	30x30	4.05	30x30	4.50			35x50	7.55
	35x25	4.10	35x25	4.50				
39000	22x50	4.56	25x45	5.10	30x45	6.00		
	25x40	4.50	30x35	5.05	35x35	5.95		
	30x30	4.46	35x30	5.05				
	35x25	4.51						

# Large Can General Purpose Aluminum Caps

## TES Series

Capacitance ( $\mu$ F)	Rated Voltage							
	6.3(8)		10(13)		16(20)		25(32)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
47000	25x45	5.09	25x50	5.75	30x50	6.80		
	30x35	5.06	30x40	5.70	35x40	6.75		
	35x30	5.03	35x30	5.65				
56000	25x50	5.71	30x45	6.45	35x45	7.60		
	30x40	5.70	35x35	6.40				
	35x30	5.75						
68000	30x45	6.48	30x50	7.05	35x50	8.00		
	35x35	6.42	35x40	7.10				
82000	30x50	7.32	35x50	7.50				
	35x40	7.29						
100000	35x45	8.31						
120000	35x50	8.60						

Capacitance ( $\mu$ F)	Rated Voltage							
	35(44)		50(63)		63(79)		80(100)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
1200							22x25	1.65
1500							22x30	1.90
							25x25	1.90
1800					22x25	1.85	22x35	2.20
							25x30	2.20
							30x25	2.20
2200			22x25	1.90	22x30	2.30	22x40	2.45
					25x25	2.30	25x30	2.45
							30x25	2.50
2700			22x30	2.10	22x35	2.45	22x45	2.80
			25x25	2.20	25x30	2.45	25x35	2.80
					30x25	2.50	30x30	2.85
							35x25	2.85
3300			22x30	2.35	22x40	2.60	22x50	3.15
			25x25	2.35	25x30	2.65	25x40	3.20
					30x25	2.70	30x30	3.20
							35x25	3.20
3900	22x25	2.20	22x35	2.65	22x45	2.95	25x45	3.60
			25x30	2.65	25x35	2.95	30x35	3.60
			30x25	2.65	30x30	3.00	35x30	3.60

# Large Can General Purpose Aluminum Caps

## TES Series

Capacitance ( $\mu$ F)	Rated Voltage							
	35(44)		50(63)		63(79)		80(100)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
4700	22x30	2.40	22x40	3.00	22x50	3.40	25x50	4.05
	25x25	2.40	25x35	3.00	25x40	3.35	30x40	4.05
			30x25	2.95	30x30	3.35	35x35	4.10
					35x25	3.40		
5600	22x35	2.75	22x45	3.35	25x45	3.70	30x45	4.55
	25x25	2.75	25x40	3.35	30x35	3.75	35x35	4.50
			30x30	3.35	35x30	3.75		
			35x25	3.40				
6800	22x40	2.85	22x50	3.80	30x40	4.25	30x50	5.15
	25x30	2.85	25x40	3.80	35x30	4.20	35x40	5.15
	30x25	2.90	30x30	3.80				
			30x35	3.85				
			35x30	3.85				
8200	22x45	3.15	25x50	4.35	30x45	4.80	35x45	5.85
	25x35	3.10	30x40	4.35	35x35	4.80		
	30x30	3.15	35x30	4.40				
10000	22x50	3.55	30x45	5.00	30x50	5.50	35x50	6.60
	25x40	3.50	35x30	4.40	35x40	5.45		
	30x30	3.45	35x35	4.95				
	35x25	3.40						
12000	25x45	3.95	30x50	5.60	35x45	6.20		
	30x35	4.00	35x40	5.55				
	35x30	4.05						
15000	25x50	4.95	35x45	6.45				
	30x40	4.95						
	35x35	5.00						
18000	30x45	5.50	35x50	6.70				
	35x40	5.55						
22000	30x50	6.00						
	35x45	6.05						
27000	35x50	6.90						

# Large Can General Purpose Aluminum Caps

## TES Series

Capacitance ( $\mu\text{F}$ )	Rated Voltage							
	100(125)		160(200)		180(225)		200(250)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
180					22x20	1.00	22x25	0.95
220					22x25	1.10	22x25	1.10
270			22x25	1.15	22x25	1.25	22x25	1.25
					25x20	1.25	22x30	1.25
							25x25	1.25
330			22x25	1.40	22x25	1.40	22x25	1.45
			25x20	1.35	22x30	1.40	22x30	1.45
					25x25	1.40	25x25	1.45
390			22x30	1.55	22x30	1.60	22x30	1.60
			25x25	1.55	25x25	1.60	25x25	1.55
			30x25	1.50				
470			22x30	1.75	22x35	1.80	22x35	1.80
			25x25	1.75	25x30	1.80	25x30	1.80
			30x25	1.70	30x25	1.80	30x25	1.80
560			22x30	1.95	22x35	2.00	22x40	2.00
			25x30	1.95	22x40	2.00	25x35	2.00
			30x25	1.90	25x30	1.95	30x25	2.00
					30x25	2.00		
680			22x40	2.20	22x45	2.25	22x45	2.35
			25x30	2.20	25x35	2.20	25x35	2.30
			30x25	2.15	30x30	2.20	30x30	2.30
					35x25	2.20	35x25	2.30
820	22x25	1.85	22x45	2.50	22x50	2.55	25x40	2.60
			25x35	2.55	25x40	2.55	25x45	2.60
			30x30	2.50	30x30	2.60	30x30	2.60
			35x25	2.50	30x35	2.60	30x35	2.60
					35x25	2.60	35x30	2.60
1000	22x30	2.10	22x50	2.85	25x45	2.85	25x45	3.00
	25x25	2.10	25x40	2.80	30x35	2.85	25x50	3.00
			30x35	2.80	35x30	2.90	30x35	3.05
			35x25	2.80			30x40	3.05
							35x30	3.00

# Large Can General Purpose Aluminum Caps

## TES Series

Capacitance ( $\mu$ F)	Rated Voltage							
	100(125)		160(200)		180(225)		200(250)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
1200	22x35	2.40	25x45	3.15	30x40	3.25	25x50	3.30
	25x30	2.45	30x35	3.15	35x30	3.30	30x40	3.30
			35x30	3.20	35x35	3.30	30x45	3.30
							35x30	3.30
							35x35	3.30
1500	22x40	2.70	30x45	3.75	30x45	3.85	30x45	3.80
	25x30	2.75	35x30	3.70	35x35	3.80	30x50	3.80
	30x25	2.75	35x35	3.70	35x40	3.80	35x35	3.80
							35x40	3.80
1800	22x45	3.10	30x50	4.20	35x40	4.30	35x40	4.35
	25x35	3.15	35x40	4.20	35x45	4.30	35x45	4.35
	30x30	3.15						
	35x25	3.15						
2200	22x50	3.50	35x40	4.60	35x45	4.90	35x45	4.95
	25x40	3.55	35x45	4.80	35x50	4.90	35x50	4.95
	30x30	3.55						
	35x25	3.60						
2700	25x45	4.10	35x50	5.45				
	30x35	4.05						
	35x30	4.05						
3300	25x50	4.50						
	30x40	4.55						
	35x30	4.50						
3900	30x45	5.15						
	35x35	5.10						
4700	35x40	5.75						
5600	35x50	6.20						

# Large Can General Purpose Aluminum Caps

## TES Series

Capacitance ( $\mu$ F)	Rated Voltage							
	250(300)		350(400)		400(450)		450(500)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
47							22x25	0.50
56					22x20	0.55	22x25	0.65
68			22x20	0.55	22x25	0.60	22x30	0.70
					25x20	0.60	25x25	0.70
82			22x25	0.65	22x25	0.80	22x30	0.80
			25x20	0.65	25x20	0.80	25x25	0.80
100			22x30	0.90	22x30	0.90	22x35	0.95
			25x20	0.90	25x25	0.90	25x30	0.95
							30x25	0.95
120	22x20	0.78	22x30	1.00	22x35	1.05	22x40	1.05
			25x25	1.00	25x25	1.05	25x30	1.05
							30x25	1.05
150	22x25	0.90	22x35	1.15	22x35	1.15	22x45	1.20
			25x30	1.15	25x30	1.15	25x35	1.20
			30x25	1.15	30x25	1.15	30x30	1.20
180	22x25	1.05	22x40	1.30	22x45	1.30	25x40	1.35
	25x20	1.00	25x30	1.25	25x35	1.30	30x35	1.35
			30x25	1.25	30x30	1.35	35x25	1.35
220	22x30	1.15	22x45	1.45	22x50	1.50	25x50	1.55
	22x35	1.15	25x35	1.45	25x40	1.50	30x40	1.55
	25x25	1.15	30x30	1.45	30x30	1.50	35x30	1.55
			35x25	1.45	35x25	1.50		
270	22x30	1.30	25x40	1.65	25x40	1.65	30x45	1.75
	25x25	1.30	30x35	1.65	30x35	1.65	35x35	1.70
			35x25	1.65	35x30	1.65		
330	22x30	1.50	25x50	1.80	25x50	1.90	30x50	2.00
	25x25	1.50	30x40	1.80	30x40	1.90	35x40	2.00
	30x25	1.50	35x30	1.80	35x30	1.85		

# Large Can General Purpose Aluminum Caps

## TES Series

Capacitance ( $\mu$ F)	Rated Voltage							
	250(300)		350(400)		400(450)		450(500)	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
390	22x35	1.65	30x40	2.00	30x45	2.15	35x45	2.25
	25x35	1.65	35x30	2.00	35x35	2.10		
	30x25	1.65						
470	22x40	1.85	30x45	2.25	30x50	2.40	35x50	2.50
	25x35	1.85	35x35	2.25	35x40	2.40		
	30x30	1.90						
	35x25	1.90						
560	22x45	2.10	35x40	2.50	35x45	2.70		
	25x40	2.10						
	30x30	2.10						
	35x25	2.10						
680	25x45	2.45	35x45	2.90	35x50	2.90	35x60	2.9
	30x35	2.45						
	35x25	2.45						
820	30x45	2.75						
	35x30	2.75						
1000	30x45	3.30						
	35x35	3.30						
1200	35x40	3.55						
1500	35x45	4.05						

- Note:** 1. Size:  $\phi$ D x L (mm);  
2. Ripple Current: A/rms, at 85°C, 120HZ;

## Ripple Current Multiplier

### Frequency Coefficient

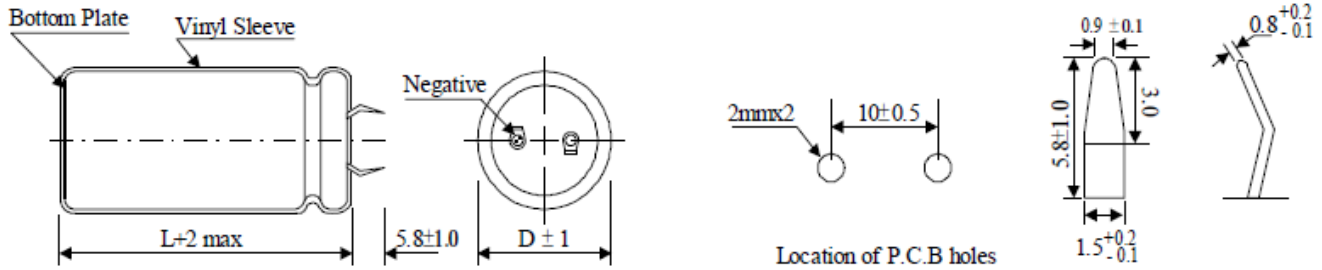
Freq.(Hz) WV (V)	50	60	120	1000	10000
6.3~100	0.88	0.90	1.00	1.15	1.16
160~250	0.75	0.78	1.00	1.16	1.23
350~450	0.74	0.76	1.00	1.10	1.15



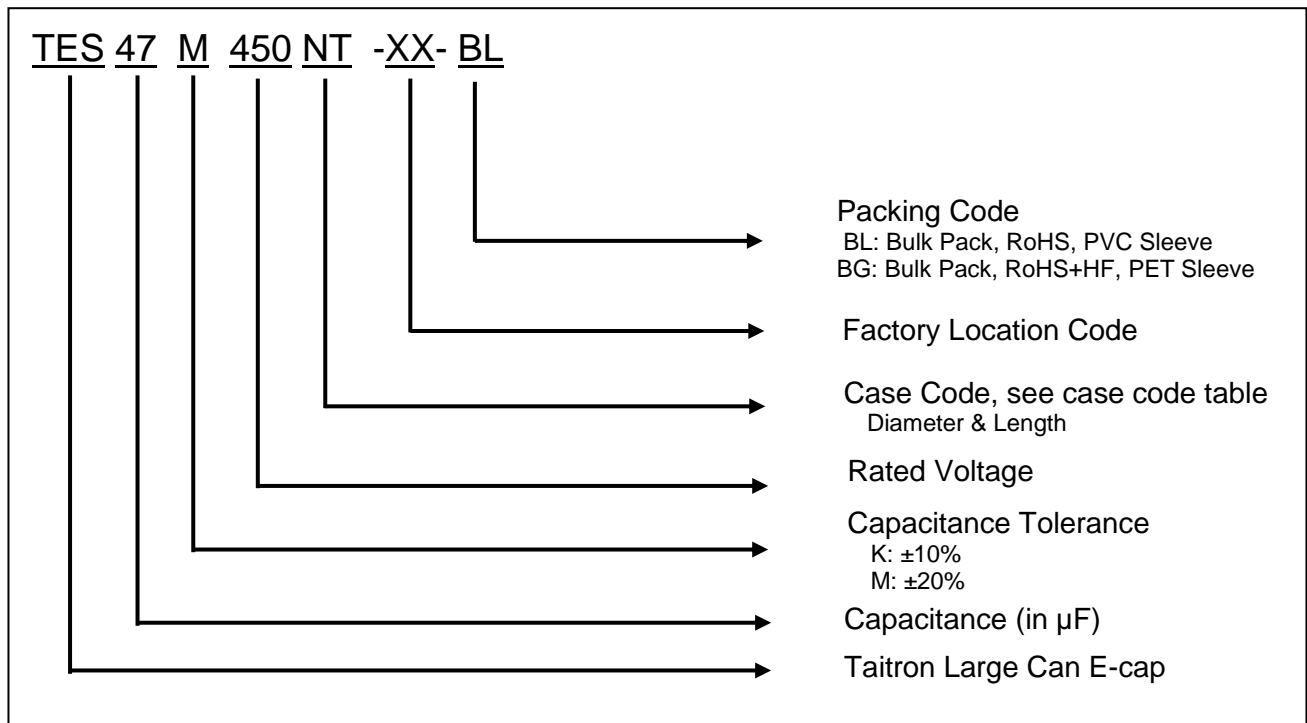
# Large Can General Purpose Aluminum Caps

## TES Series

### Dimensions (in mm)



### How to Order



# Large Can General Purpose Aluminum Caps

## TES Series

Case code table:

Diameter (mm)	3	4	5	6	6.3	8	10	12	13	16	18	20	22	25	30	35	40	50	63	76
Code	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V

Length (mm)	5	7	7.5	8	9	11	11.5	12	12.5	13	15	16	17	19	20	21	24	25	25.5	26
Code	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U	V
Length (mm)	27	28	30	31.5	32	33	35	35.5	36	37	38	40	41	42	43	45	50	80	100	800
Code	W	X	Y	Z	AA	BB	CC	DD	EE	FF	GG	HH	JJ	KK	LL	MM	NN	PP	QQ	RR

## How to contact us

### USA HEADQUARTERS

28040 WEST HARRISON PARKWAY, VALENCIA, CA 91355-4162

Tel: (800)-TAITRON (800)-824-8766 (661)-257-6060

Fax: (800)-TAITFAX (800)-824-8329 (661)-257-6415

Email: [taitron@taitroncomponents.com](mailto:taitron@taitroncomponents.com)

Http://[www.taitroncomponents.com](http://www.taitroncomponents.com)

### TAITRON COMPONENTS INCORPORATED TAIWAN BRANCH

6F., NO.190, SEC. 2, ZHONGXING RD., XINDIAN DIST., NEW TAIPEI CITY 23146, TAIWAN R.O.C.

Tel: 886-2-2913-6238

Fax: 886-2-2913-6239

### TAITRON COMPONENT TECHNOLOG SHANGHAI CORPORATION

SUITE 1503, METROBANK PLAZA, 1160 WEST YAN'AN ROAD, SHANGHAI, 200052, CHINA

Tel: +86-21-5424-9942

Fax: +86-21-2302-5027