

- SMD Low Impedance Type. Reflow Soldering is available.
- 4~18φ, 105°C, 2000 ~ 5000 hours load life., Rohs compliant
- Available For High Density Mounting

Characteristics

Voltage Range	6.3 to 100 VDC									
Capacitance Range	1.0 to 6800uF									
Temperature Range	-55 to +105°C									
Capacitance Tolerance	+/-20% (at 20°C, 120Hz)									
Leakage Current	I≤0.01CV or 3uA, whichever is greater, 2 minutes after Rated Voltage applied, where C = Rated Capacitance, V = Rated DC working voltage									
Dissipation Factor (tanδ)Max	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100
	D.F.(tanδ)	0.30	0.26	0.22	0.16	0.13	0.10	0.08	0.08	0.07
	(at 20°C, 120Hz)									
Stability at Low Temperature (at 120Hz)	Impedance ratio shall not exceed the values given in the table below:									
	Rated Voltage (V)	6.3	10	16	25	35	50	63	80	100
	Z-25°C/Z 20°C	4	3	2	2	2	2	2	2	2
Z-55°C/Z 20°C	8	5	4	3	3	3	3	3	3	
Load Life	2000hrs for ψD≤6.3mm, 5000hrs for ψD≥8mm After the rated voltage has been applied for 2000~5000 hours at 105°C				Capacitance change		Within ±30% of initial value			
					D.F. (tanδ)		300% or less of initial specified value			
					Leakage current		Less than initial specified value			
Shelf Life	After storage for 1000 hours at 105°C, with no voltage applied and being stabilized at +20°C, Capacitor shall meet the limit specified in load life.									
Ripple current & Frequency Multipliers	Frequency (Hz)	50,60		120		1K		10K up		
	Multipliers	0.60		0.70		0.85		1.0		

Diagram of dimensions

SIZE	Dφ	L	A	B	C	W	P±0.2
A	4	5.5	4.3	4.3	5.1	0.5~0.8	1.0
B	5	5.5	5.3	5.3	6.1	0.5~0.8	1.5
C	6.3	5.7	6.6	6.6	7.4	0.5~0.8	2.0
C8	6.3	7.7	6.6	6.6	7.4	0.5~0.8	2.0
D	8	6.5	8.4	8.4	9.2	0.7~1.1	2.2
E	8	10.5	8.34	8.34	9.2	0.7~1.1	3.1
F	10	10.5	10.4	10.4	11.2	0.7~1.1	4.7
G	12.5	13.5	13.0	13.0	15.0	1.1~1.4	4.4
H	12.5	16.0	13.0	13.0	15.0	1.1~1.4	4.4
I	16	16.5	17.0	17.0	19.0	1.1~1.4	6.4
J	16	21.5	17.0	17.0	18.0	1.1~1.4	6.0
K	18	16.5	19.0	19.0	20.0	1.1~1.4	6.4
L	18	21.5	19.0	19.0	20.0	1.1~1.4	6.4

Fig. 1

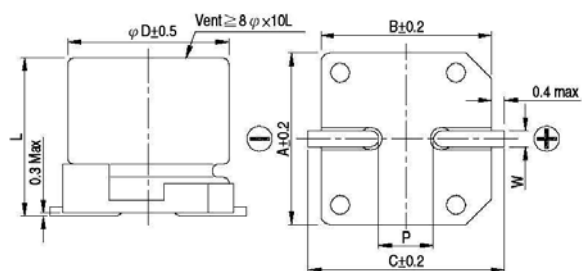
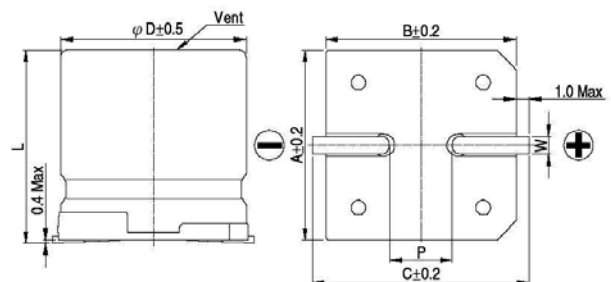


Fig. 2



Size A~F refer to Fig. 1

Size G~L refer to Fig. 2

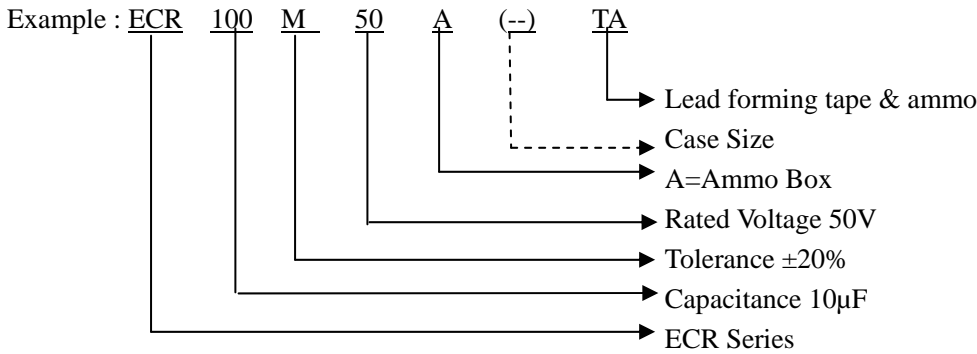
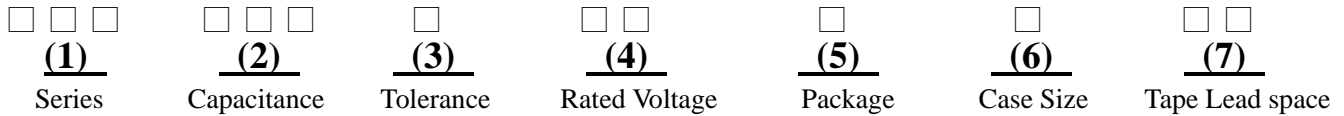
Case size & Maximum Ripple Current(mA rms 105°C 100KHz) & Imp. (Ω 20°C 100KHz)

Cap. $\frac{WV}{\mu F}$	6.3			10			16			25			35			50		
μF	Size	R.C.	Imp.	Size	R.C.	Imp.	Size	R.C.	Imp.	Size	R.C.	Imp.	Size	R.C.	Imp.	Size	R.C.	Imp.
1																A	60	2.9
2.2																A	60	2.9
3.3																A	60	2.9
4.7													A	80	1.35	B	85	1.52
10							A	80	1.35	A	80	1.35	B	150	0.76	C	165	0.88
22				A	80	1.80	B	150	0.76	B	150	0.76	B C	150 230	0.76 0.44	C	165	0.88
33	A	80	1.35	B	150	0.76	C	230	0.44	C	230	0.44	C	230	0.44	C8 E	185 300	0.68 0.34
47	B	150	0.76	C	230	0.44	C	230	0.44	C	230	0.44	C D	230 280	0.44 0.32	C8 E	185 369	0.68 0.34
100	C	230	0.44	C	230	0.44	C D	230 280	0.44 0.36	C8 E	280 450	0.34 0.17	E F	450 670	0.17 0.14	E F	369 553	0.34 0.18
150	C	230	0.44	C	230	0.44	C8	280	0.36	E	450	0.17	E	450	0.17	F	553	0.18
220	C	230	0.44	C8	280	0.34	C8 E	280 450	0.34 0.17	E F	450 670	0.17 0.09	E F	450 670	0.17 0.09	F	670	0.18
330	C8 E	280 450	0.34 0.17	E F	450 510	0.17 0.15	E F	450 510	0.17 0.15	E F	450 670	0.17 0.09	F	670	0.09	G	650	0.12
470	E	450	0.17	E F	450 670	0.17 0.09	E F	450 670	0.17 0.09	F	670	0.09	H	950	0.06	I	1000	0.073
680	E	450	0.17	F	670	0.09	F	670	0.09	G	820	0.07	H	950	0.06	I	1000	0.073
1000	E F	450 553	0.17 0.09	F	670	0.09	G	820	0.07	H	950	0.06	I	1260	0.054	K	1500	0.066
1500	F	670	0.09	G	820	0.07	H	950	0.06	I	1260	0.054	J	1500	0.048	L	1750	0.038
2200	G	820	0.07	H	950	0.06	I	1260	0.054	I	1260	0.054	L	1750	0.038			
3300	H	950	0.06	I	1260	0.054	I J	1260 1630	0.054 0.038	J K	1630 1500	0.038 0.048						
4700	I	1260	0.054	I	1260	0.054	J K	1630 1500	0.038 0.048									
6800	J K	1630 1500	0.038 0.048	J K	1630 1500	0.038 0.048												

Cap. $\frac{WV}{\mu F}$	63			80			100		
μF	Size	R.C.	Imp.	Size	R.C.	Imp.	Size	R.C.	Imp.
4.7	B	70	1.90						
10	C	130	1.20						
22	C8	150	0.90	E	130	1.30	E	130	1.30
33	E	280	0.50	E	130	1.30	F	200	0.70
47	E	280	0.50	F	200	0.70	F	200	0.70
100	F	450	0.25	F	200	0.70	G	450	0.32
150	G	700	0.15	G	450	0.32	H	550	0.26
220	G	700	0.15	H	550	0.26	I	650	0.17
330	I	900	0.082	I	650	0.17	J	850	0.15
470	I	900	0.082	J	850	0.15	L	950	0.15
680	J	1150	0.080	L	950	0.15			
1000	L	1250	0.06						

Part Numbering System

When you place an order for HITANO electrolytic capacitors, please refer to our part number as shown below.



(1) Series:

Series is represented by three digit code. Please refer to “Series Table” on page 3

(2) Capacitance:

Rated capacitance in μF is represented by a three digit number. The first two digits are the significant figures of the nominal capacitance and the third digit indicates the number of zeros following these figures. The decimal point is represented by the capital letter R. Please refer to the following example:

μF	0.1	0.47	1	4.7	10	47	100	470	1000	4700	10000
Part number	0R1	R47	010	4R7	100	470	101	471	102	472	103

(3) Tolerance:

Symbol of M and K show special capacitance tolerance which are listed as follows:

K = -10% ~ +10%	M = -20% ~ +20%
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(4) Rated Voltage:

Voltage on volts (V) is represented by two digit code showing the real working voltage indicated as follows:

Voltage(WV)	2.5	4	6.3	10	16	20	25	35	40	50	63	80	100	160	200	250	350	400	450
Code	0E	0G	0J	10	16	20	25	35	40	50	63	80	2A	2C	2D	2E	2V	2G	2W

(5) Package:

B = Bulk ;	
C5 = Lead Cutting 5mm & Loose Package	AC5= Smaller Size With Cutting 5mm
A = Tape & Ammo Package	R = Tape & Reel Package
F5 = Lead Forming & Cutting 5mm & Loose Package	

(6) Case Size:(Omit if only One size.)

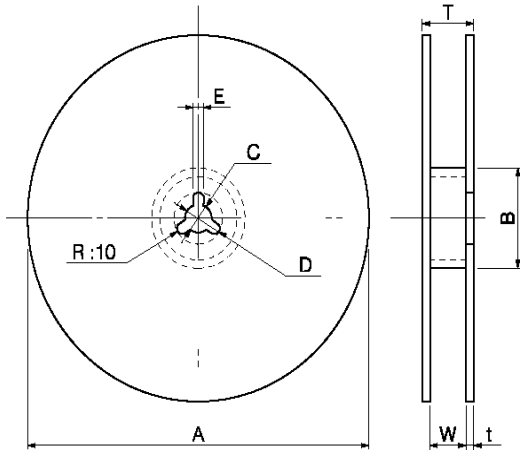
EVS ,ERS = Apply Size Code	V-CHIP = Apply Size Code
Snap In Type= Apply Size Code	A=Smaller Size For Bulk
S= Customized Size	

(7) Lead Space (Omit if Loose Package)on page 31

T1 = Lead space 2.5mm Tape(d=4 or 5 Forming)	TA = Lead Forming space 5mm Tape
T3 = Lead space 7.5mm Tape	T2 = Lead space 5mm Tape
T35= Lead space 3.5mm Tape	

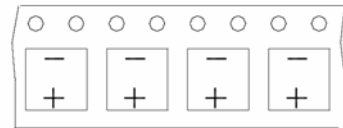
Packaging Specifications

- Reel Dimensions in mm (not to scale)

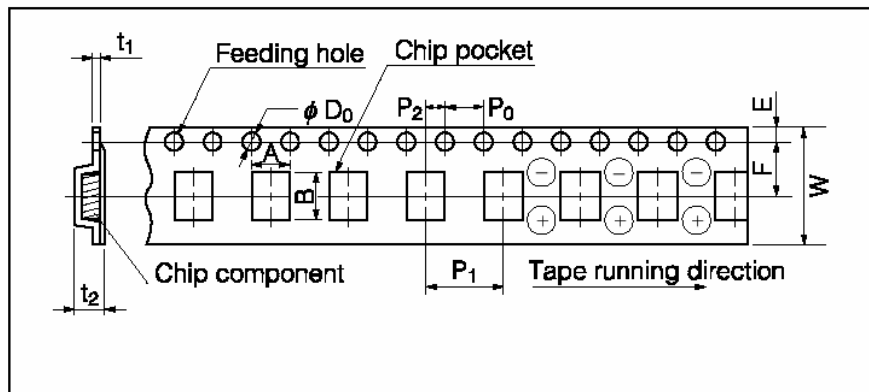


SIZE	A	B	C	D	E	W	t
A,B	380±2	80min	13.0±0.5	21.0±0.8	2.0±0.5	14±1	2.0
C(8),D	380±2	80min	13.0±0.5	21.0±0.8	2.0±0.5	18±1	2.0
E,F	380±2	80min	13.0±0.5	21.0±0.8	2.0±0.5	26±1	2.0
G,H	380±2	80min	13.0±0.5	21.0±0.8	2.0±0.5	34±1	3.0
I,J	380±2	80min	13.0±0.5	21.0±0.8	2.0±0.5	46±1	3.0
K,L	380±2	80min	13.0±0.5	21.0±0.8	2.0±0.5	46±1	3.0

→ Pull out direction



- Taping Dimensions in mm (not to scale)



SIZE	W	A	B	P ₀ ±0.1	P ₁	P ₂ ±0.1	F	φ D ₀ ^{+0.1}	t ₁	E	t ₂	Q'ty per Reel
A	12.0	5.0	5.0	4.0	8.0	2.0	5.5	1.5	0.4	1.75	5.8	2000
B	12.0	6.0	6.0	4.0	12.0	2.0	5.5	1.5	0.4	1.75	5.8	1000
C	16.0	7.0	7.0	4.0	12.0	2.0	5.5	1.5	0.4	1.75	5.8	1000
C8	16.0	7.0	7.0	4.0	12.0	2.0	5.5	1.5	0.4	1.75	8.4	1000
D	16.0	8.7	8.7	4.0	12.0	2.0	7.5	1.5	0.4	1.75	6.8	1000
E	24.0	8.7	8.7	4.0	16.0	2.0	11.5	1.5	0.4	1.75	11.0	500
F	24.0	10.7	10.7	4.0	16.0	2.0	11.5	1.5	0.4	1.75	11.0	500
G	32.0	13.4	13.4	4.0	24.0	2.0	14.2	1.5	0.5	1.75	14.0	200
H	32.0	13.4	13.4	4.0	24.0	2.0	14.2	1.5	0.5	1.75	17.5	200
I	44.0	17.5	17.5	4.0	28.0	2.0	20.2	1.5	0.5	1.75	17.5	200
J	44.0	17.5	17.5	4.0	28.0	2.0	20.2	1.5	0.5	1.75	22.5	150
K	44.0	19.5	19.5	4.0	32.0	2.0	20.2	1.5	0.5	1.75	17.5	150
L	44.0	19.5	19.5	4.0	32.0	2.0	20.2	1.5	0.5	1.75	22.5	100