HITANO
ENTERPRISE CORP. ®

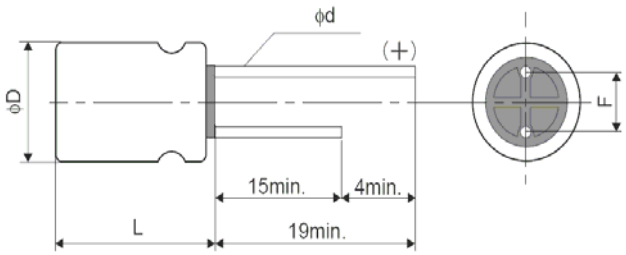
ERS SERIES

Features

- Ultra low ESR level and excellent performance at high frequency through low profile.
- Ideal capacitor for digital and high frequency devices.
- High heat resistance and high reliability.

Characteristics

Voltage Range	2.5 ~50VDC	
Capacitance Range	6.8uF ~ 1500uF	
Temperature Range	-55 ~ +105℃	
Capacitance Tolerance	M:±20% , K:±10% (at 20℃ , 120Hz)	
Leakage Current	Capacitance(μF) x Rated Voltage(Vdc) After 2minutes, see standard rating	
Dissipation Factor (tanδ) 20℃ 120Hz	See standard rating	
ESR (at 100K~300K Hz, 20℃)	See standard rating	
Endurance (Rated Voltage at 105℃ 2000 h, restored to 20℃)	Appearance	≦No significant damage
	Capacitance Change (μF)	Within ±20% of initial measured value
	Dissipation Factor (tanδ)	≦150% of an initial specified value
	ESR (mΩ)	≦150% of an initial specified value
	Leakage Current (μA)	≦Initial specified value
Moisture Resistance (Test at 60℃, 90~95RH for 1000hrs, L.C. should be tested after voltage treatment)	Capacitance Change (μF)	Within ±20% of initial measured value
	Dissipation Factor (tanδ)	≦150% of an initial specified value
	ESR (mΩ)	≦150% of an initial specified value
	Leakage Current (μA)	≦Initial specified value
Resistance to Soldering Heat	Capacitance Change (μF)	Within ±10% of initial measured value
	Dissipation Factor (tanδ)	≦130% of an initial specified value
	ESR (mΩ)	≦130% of an initial specified value
	Leakage Current (μA)	≦Initial specified value
Low Temperature Characteristics	Impedance Ratio (at 100kHz): Z_{-25}/Z_{+20} : 1.15 , Z_{-55}/Z_{+20} : 1.25	
Surge Voltage (V)	Rated Voltage x 1.15 (at 105℃)	



Lead Spacing, diameter and size code

Case Size	C6	C7	C11	D12	F10	F13
ϕD	6.3	6.3	6.3	8.0	10	10
L	5.5	6.5	11	12	10	12.5
F	2.5	2.5	2.5	3.5	5.0	5.0
ϕd	0.45	0.45	0.6	0.6	0.6	0.6

Frequency coefficient for ripple current

Frequency	120Hz≦f<1KHz	1KHz≦f<10KHz	10KHz≦f<100KHz	100KHz≦f<500KHz
Coefficient	0.05	0.3	0.7	1.0

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Dimensions, Maximum Ripple Current & Impedance

W.V.(V)	Capacitance (μF)	Case Size	Size φDxL(mm)	Tanδ (120Hz,20℃)	L.C. (μA)	E.S.R. (100k-300kHz, mΩ,20℃ max)	Rated R.C 105℃ (mArms at 100kHz,)
2.5(0E)	220	C6	6.3X5.5	0.12	110	28	2390
	390	C11	6.3X11	0.12	195	18	3160
	680	D12	8X12	0.18	340	10	5230
	1000	F10	10X10	0.18	500	14	4700
	1500	F13	10X12.5	0.18	750	8	5500
4(0G)	150	C6	6.3X5.5	0.12	120	40	1810
	270	C11	6.3X11	0.12	216	15	3200
	560	D12	8X12	0.18	448	10	5230
	1200	F13	10X12.5	0.18	960	8	5500
6.3(0J)	100	C6	6.3X5.5	0.12	126	40	1810
	220	C11	6.3X11	0.12	277	18	3160
	330	C7	6.3X6.5	0.12	416	28	2390
	390	D12	8X12	0.15	491	12	4770
	470	D12	8X12	0.15	592	12	4770
	820	F13	10X12.5	0.15	1033	10	5500
10(1A)	100	C7	6.3X6.5	0.12	200	45	1700
	220	F10	10X10	0.15	440	17	3950
	330	D12	8X12	0.12	660	14	4420
	560	F13	10X12.5	0.12	1360	12	5300
16(1C)	47	C6	6.3X5.5	0.10	150	50	1650
	100	C11	6.3X11	0.10	320	22	2820
	180	D12	8X12	0.12	576	16	4360
	330	F13	10X12.5	0.12	1056	16	4360
	470	F13	10X12.5	0.12	1504	14	5050
20(1D)	22	C6	6.3X5.5	0.10	88	60	1450
	56	C11	6.3X11	0.10	224	25	2650
	100	D12	8X12	0.15	400	24	3320
	100	F10	10X10	0.15	400	24	3320
	150	F13	10X12.5	0.15	600	20	4320
25V(1E)	6.8	C6	6.3X5.5	0.10	170	80	1200
	33	D12	8X12	0.12	165	24	3320
	56	D12	8X12	0.12	280	24	3320
		F13	10X12.5	0.12	280	20	4320
	68	D12	8X12	0.12	340	24	3320
	100	F13	10X12.5	0.12	500	20	4320
35V(1V)	22	D12	8X12	0.12	154	50	2300
	39	D12	8X12	0.12	273	31	2100
	47	F13	10X12.5	0.12	329	30	3650
	68	F13	10X12.5	0.12	476	28	2700
50V(1H)	27	D12	8X12	0.12	270	36	2000
	47	F13	10X12.5	0.12	470	31	2500