

**FL**

Special for Charger series

New

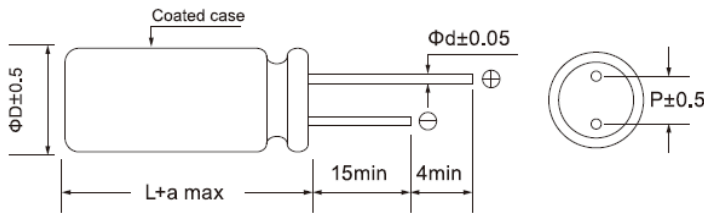
- Endurance:105°C,2000hrs
- Recommended Applications:Special charger series
- Corresponding product to RoHS



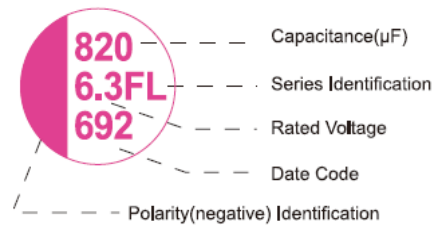
**Specifications**

Item	Characteristics		
Category Temperature Range	-55 ~ +105°C		
Rated Voltage Range	6.3~16VDC		
Rated Capacitance Range	22~ 2200 μF		
Capacitance Tolerance	± 20 % (120Hz , 20°C)		
Surge Voltage	Rated voltage ( V ) x 1.15		
Leakage Current ( 20°C )	I ≤ 0.2CV or 300( μ A ) whichever is greater (After rated voltage applied for 2 minutes ) I : Leakage Current ( μ A ) C : Capacitance( μ F ) V : Rated Voltage Range(VDC)		
Dissipation Factor (MAX) (tan δ ) (120Hz ,20°C)	WV	6.3~10	12~16
	tan δ	0.08	0.12
Temperature characteristic Impedance ratio (MAX)	WV	6.3 ~ 16V	
	Z(100KHz) Z-25°C / Z+20°C	≤ 1.15	
	Z-55°C / Z+20°C	≤ 1.25	
Endurance	After applying rated voltage for 2000 hours at 105°C, the capacitor shall meet the following requirement °		
	Appearance	No significant damage	
	Capacitance Change	Within ±20% of the initial value	
	Dissipation Factor	Not more than 150% of the initial specified value	
	Equivalent Series Resistance	Not more than 150% of the initial specified value	
Humidity Test	after subjecting 90 to 95% RH for 1000 hours at 60°C , the capacitors shall meet the requirement as Endurance °		
	Surge voltage test After subjecting to 1000 cycles each consisting of charge with the surge voltage specified at normal temperature for 30 seconds through a protective resistor and discharge for 5 minutes 30 seconds,the capacitors shall meet the requirement as Endurance		
Failure rate(MAX)	1%per 1,000 hours(confidence level 60% at 105°C)		

**Diagram of Dimensions**



**Marking : case with red printing**



SIZE	Φ D x L	P	φ d	a
C07	5x7	2.0	0.5	1.5
C09	5x9	2.0	0.5	1.0
D07	5x7	2.5	0.5	1.0
D09	5x9	2.5	0.5	1.0
D11	5x11	2.5	0.5	1.0
E01	6.3x5.4	2.5	0.45	1.0
E06	6.3x6	2.5	0.5	1.5
E07	6.3x7	2.5	0.5	1.5

SIZE	Φ D x L	P	φ d	a
E08	6.3x8	2.5	0.5or0.6	1.0
E09	6.3x9	2.5	0.5	1.0
E11	6.3x11	2.5	0.5	1.0
G08	8x8	3.5	0.6	1.5
G09	8x9	3.5	0.6	1.5
G1B	8x11.5	3.5	0.6	1.0
H1A	10x10.5	5.0	0.6	1.0
H1C	10x12.5	5.0	0.6	1.0

**Multiplier for Ripple Current**

Frequency(HZ)	120 ≤ F < 1K	1K ≤ F < 10K	10K ≤ F < 100K	100K ≤ F ≤ 500K
Coefficient	0.05	0.30	0.70	1.00

■Dimensions, Rated Ripple Current, Equivalent Series Resistance

Rated ( Surge ) Voltage(V)	Capacitance ( $\mu$ F )	SIZE $\Phi$ DxL(mm)	RIPPLE (mA/rms, 105°C 100KHz)	ESR (m $\Omega$ , 20°C 100KHz)	Rated ( Surge ) Voltage(V)	Capacitance ( $\mu$ F )	SIZE $\Phi$ DxL(mm)	RIPPLE (mA/rms, 105°C 100KHz)	ESR (m $\Omega$ , 20°C 100KHz)
6.3 (7.25)	47	6.3x5.4	1810	30	7.5 (8.62)	270	5x9	2690	15
	100	6.3x5.4	1810	40		390	5x9	3100	15
	180	6.3x5.4	1810	30		470	5x9	3100	15
	220	5x7	3500	11		500	5x9	3100	12
		6.3x5.4	1810	30		680	6.3x9	3500	12
		6.3x6	3160	15	10 (11.5)	68	6.3x5.4	1810	30
	270	5x7	3500	11		100	5x7	3500	11
	330	5x7	3500	11			6.3x5.4	2320	27
		6.3x5.4	1810	30		150	6.3x5.4	2200	30
		6.3x6	3390	22		180	6.3x8	2820	25
	390	5x9	3500	11		220	6.3x8	2820	25
		6.3x9	3500	8		270	6.3x8	2820	25
	450	5x9	3500	11		330	6.3x8	2820	25
		6.3x6	3390	22			8x8	3500	11
	470	5x9	3190	28		470	6.3x9	2820	25
		6.3x6	3390	22			8x11.5	5600	8
		6.3x8	3800	10			10x10.5	5050	8
		8x8	4200	8			560	8x11.5	5600
	560	6.3x8	4000	10		10x12.5		6100	8
		8x8	4800	12		680	8x11.5	5600	8
	680	6.3x9	3500	8	10x12.5		6100	8	
		820	8x11.5	5600	7	820	8x11.5	5600	8
	6.3x9		3500	8	10x12.5		6100	8	
	8x11.5		5600	7	1200	10x12.5	6100	8	
10x10.5	5050		8	1500		10x12.5	6100	8	
10x12.5	5600	7	16(18.4)		22	5x7	2200	30	
1000	8x8	4770		14	33	6.3x5.4	2200	30	
	8x11.5	5600		7		47	6.3x5.4	2490	24
1200	8x11.5	5600		7	68		6.3x5.4	1650	35
	10x10.5	5050		8		100	6.3x6	2610	25
1500	8x11.5	5600		7	68		6.3x5.4	1650	35
	10x10.5	5050		8		100	6.3x5.4	2490	24
	10x12.5	5600		7	150		6.3x8	2820	25
2200	10x12.5	5600		7		180	6.3x8	2820	25
6.8 (7.82)	180	5x7		2300	20		270	8x8	3150
	220	5x7		2500	20	6.3x8		2820	25
	270	5x7		2500	20		8x8	3500	16
	330	5x9	3100	15	270	6.3x9		3100	20
	390	5x9	3100	15		8x8	3800	15	
	680	6.3x9	3500	11		8x11.5	5000	11	
	820	6.3x9	3500	11		10x10.5	5050	14	
	1000	6.3x11	4200	10					