



Low impedance · Long life · Miniaturization Series

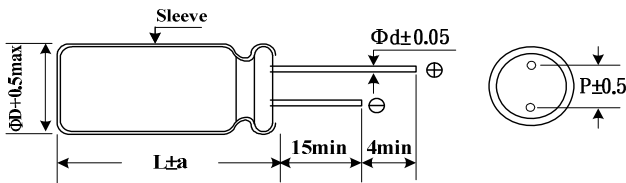
- Endurance: 105°C 5000hrs
- Recommended Applications : Apply to the requirement of long life, low impedance, high reliability, etc.
- Corresponding product to RoHS



**■ SPECIFICATIONS**

Item	Characteristics							
Category Temperature Range	-40 ~ +105°C							
Rated Voltage Range	6.3 ~ 50VDC							
Rated Capacitance Range	1~270 µF							
Capacitance Tolerance	± 20 % (120Hz , 20°C)							
Leakage Current (20°C)	I=0.03CV or 3 µA whichever is greater. (After rated voltage applied for 2 minutes) I : Max. leakage current (µA), C : Nominal capacitance (µF), V : Rated voltage (V)							
Dissipation Factor(MAX) (tan δ) (120Hz ,20°C)	WV	6.3	10	16	25	35	50	
	tan δ	0.5	0.4	0.35	0.3	0.25	0.25	
Low Temperature Stability Impedance Ratio (MAX)	WV	6.3	10	16	25	35	50	
	Z(120Hz)							
	Z-25°C / Z+20°C	4	3	2	2	2	2	
	Z-40°C / Z+20°C	8	6	4	3	3	3	
Endurance	After applying rated voltage with rated ripple current for 5000hours at 105°C, the capacitors shall meet the following requirements.							
	Capacitance change	Within ± 30% of initial value						
	D.F. (tan δ)	Not more than 200% of specified value						
	Leakage current	initial specified value or less						
Shelf Life	After placed at 105°C without voltage applied for 1000 hours,the capacitors shall meet the same requirement as load life.							
	Capacitance change	Within ± 25% of initial value						
	D.F. (tan δ)	Not more than 200% of specified value						
	Leakage current	Not more than the specified value						

**■ Dimensions [mm]**



Vent only for 8Φ

ΦD	4	5	6.3	8
P	1.5	2.0	2.5	3.5
Φd	0.45	0.45	0.45	0.5
a	1.0	1.0	1.0	1.0

**■ Multiplier for Ripple Current**

Freq. (Hz)	120	1 K	10 K	100 K
1~3.3 µF	0.20	0.66	0.90	1.00
4.7~6.8 µF	0.35	0.70	0.90	1.00
10~150 µF	0.40	0.75	0.90	1.00
220~270 µF	0.50	0.85	0.94	1.00



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■ STANDARD RATINGS

Rated Voltage (SurageVoltage) (V)	Cap ( $\mu$ F)	Case size $\Phi$ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance ( $\Omega$ ,20°C) (100KHz)	Rated Voltage (SurageVoltage) (V)	Cap ( $\mu$ F)	Case size $\Phi$ DxL(mm)	Ripple current (mA/rms105°C) (100KHz)	Impedance ( $\Omega$ ,20°C) (100KHz)
6.3V (8)	33	4x5	37	5.4	25V (32)	15	4x7	44	4.5
	47	4x7	44	4.5		15	5x5	57	3.1
	56	5x5	57	3.1		22	5x7	70	2.5
	82	5x7	70	2.5		33	6.3x5	82	1.7
	100	6.3x5	82	1.7		56	6.3x7	116	1.3
	150	6.3x7	116	1.3		68	8x5	110	1.5
	220	8x5	110	1.5		100	8x7	162	0.9
10V (13)	22	4x5	37	5.4	35V (44)	4.7	4x5	37	5.4
	33	4x7	44	4.5		6.8	4x7	44	4.5
	33	5x5	57	3.1		10	5x5	57	3.1
	47	5x7	70	2.5		10	5x7	70	2.5
	68	6.3x5	82	1.7		22	6.3x5	82	1.7
	100	6.3x7	116	1.3		22	6.3x7	116	1.3
	150	8x5	110	1.5		33	8x5	110	1.5
220	8x7	162	0.9	47	8x7	162	0.9		
16V (20)	15	4x5	37	5.4	50V (63)	1.0	4x5	18	19
	22	4x7	44	4.5		2.2	4x5	22	14
	22	5x5	57	3.1		3.3	4x5	26	11
	33	5x7	70	2.5		4.7	4x7	30	9
	47	6.3x5	82	1.7		4.7	5x5	40	6
	68	6.3x7	116	1.3		6.8	5x7	50	4.8
	100	8x5	110	1.5		10	6.3x5	63	2.9
	150	8x7	162	0.9		15	6.3x7	90	2.2
25V (32)	10	4x5	37	5.4	22	8x5	84	2.6	
					22	8x7	120	1.6	