

## L7 SERIES

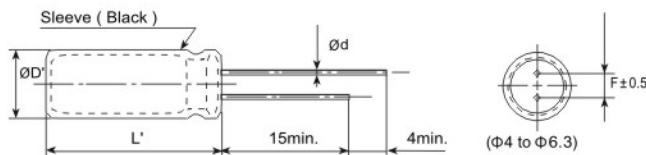
- Miniature series 7mm height
- Endurance: +105°C 2,000 hours
- Wide temperature range of -40°C+105°C
- RoHS Compliant



### ◆ SPECIFICATIONS

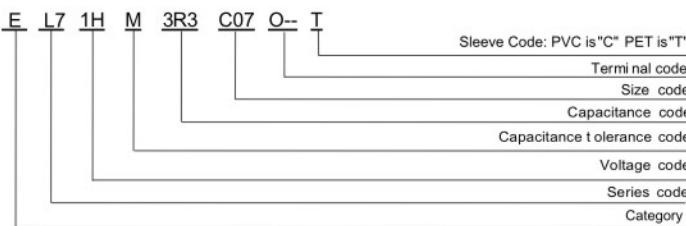
Items	Characteristics											
Category Temperature Range	-40 to +105°C											
Rated Voltage Range	6.3 to 63Vdc											
Capacitance Tolerance	$\pm 20\%$ (M) (at 20°C, 120Hz)											
Leakage Current	Is 0.01CV or 3μA whichever is greater. Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V) (at 20 °C after 2 minutes)											
Dissipation Factor (tan δ)	Rated voltage (V <sub>dc</sub> )	6.3	10	16	25	35	50	63	(at 20°C, 120Hz)			
	tanδ (Max.)	0.22	0.19	0.16	0.14	0.12	0.10	0.09				
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	6.3	10	16	25	35	50	63	(at 120Hz)			
	Z(-25°C)/Z(+20°C)	4	3			2						
	Z(-40°C)/Z(+20°C)	8	6	4		3						
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 105°C.											
	Capacitance change	$\leq \pm 20\%$ of the initial value										
	D.F. (tan δ)	$\leq 200\%$ of the initial specified value										
	Leakage current	$\leq$ The initial specified value										
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied.											
	Capacitance change	$\leq \pm 20\%$ of the initial value										
	D.F. (tan δ)	$\leq 200\%$ of the initial specified value										
	Leakage current	$\leq 200\%$ The initial specified value										

### ◆ DIMENSIONS [mm]



Ø D	4	5	6.3	8
Ød	0.45	0.45	0.5	0.5
F	1.5	2.0	2.5	3.5
ØD'	$\text{ØD}+0.5\text{max.}$			
L'	$L+2\text{max.}$			

### ◆ PART NUMBERING SYSTEM



※Sleeve Code and Terminal Code should follow the part number system

### ◆ RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Freq.(Hz) WV( V <sub>dc</sub> )	50/60	120	1K	10K-100K
6.3 to 16	0.80	1.00	1.3	1.50
25 to 35	0.80	1.00	1.20	1.20
50 to 63	0.80	1.00	1.15	1.20

The endurance of capacitors is shorted with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

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## ◆ STANDARD RATINGS

WV (Vdc)	Cap ( $\mu$ F)	Case size $\Phi D \times L$ (mm)	$\tan\delta$	Ripple current (mArms/105°C,120Hz)
6.3(0J)	22	4x7	0.22	28
	33	4x7	0.22	32
		5x7	0.22	35
	47	5x7	0.22	47
	68	5x7	0.22	50
	100	6.3x7	0.22	75
10(1A)	220	8x7	0.22	92
	22	4x7	0.19	32
	33	5x7	0.19	48
	47	5x7	0.19	51
	68	6.3x7	0.19	68
	100	6.3x7	0.19	80
		8x7	0.19	95
16(1C)	220	8x7	0.19	130
	10	4x7	0.16	28
	22	4x7	0.16	35
		5x7	0.16	42
	33	5x7	0.16	50
	47	6.3x7	0.16	67
	68	6.3x7	0.16	70
		8x7	0.16	78
25(1E)	100	8x7	0.16	110
	4.7	4x7	0.14	17
	6.8	4x7	0.14	19
	10	4x7	0.14	28
		5x7	0.14	33
	22	5x7	0.14	43
		6.3x7	0.14	45
	33	6.3x7	0.14	62
	47	8x7	0.14	75
	68	8x7	0.14	80
35(1V)	100	8x7	0.14	115
	4.7	4x7	0.12	22
	6.8	4x7	0.12	24
		5x7	0.12	28
	10	5x7	0.12	35
	22	6.3x7	0.12	60
	33	6.3x7	0.12	50
		8x7	0.12	68
	47	8x7	0.12	80
	68	8x7	0.12	85
50(1H)	0.1	4x7	0.10	1.5
	0.22	4x7	0.10	2.5
	0.33	4x7	0.10	3.5
	0.47	4x7	0.10	5
	0.68	4x7	0.10	7
	1	4x7	0.10	10
	2.2	4x7	0.10	20
	3.3	4x7	0.10	26
	4.7	4x7	0.10	27
		5x7	0.10	29
63(1J)	10	6.3x7	0.10	38
	22	8x7	0.10	63
	33	8x7	0.10	78
	0.1	4x7	0.09	1.5
	0.22	4x7	0.09	2.5
	0.33	4x7	0.09	3.5
	0.47	4x7	0.09	6
	1	4x7	0.09	12
	2.2	4x7	0.09	20
	3.3	5x7	0.09	28