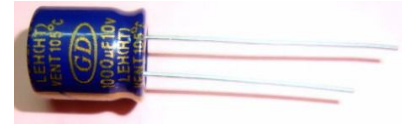




LEH series 小型化高頻率低 E.S.R 品



1. 高頻率低 ESR，壽命 1000~3000 小時，105⁰C
Low ESR for high frequency, Life time:1000 ~3000hours at 105⁰C
2. 適用於電腦主機板，高保真音箱，高分辨數碼彩電等電子線路中
Used in main board, hi-fi acoustics, numeral color-TV circuits etc.

Specifications

No.	Item	Performance																											
1	使用溫度範圍 Operating Temperature Range	-40 to +105 ⁰ C																											
2	定格電壓範圍 Rated Working Voltage Range	6.3-100V.DC																											
3	靜電容量範圍 Capacitance Tolerance	6.8-4700 μ F																											
4	靜電容量容許差 Capacitance Tolerance	$\pm 20\%$ (at+20 ⁰ C,120Hz)																											
5	洩漏電流 Leakage Current	I \leq 0.01CV or 3(μ A) after three minutes Application of rated working voltage +20 ⁰ C																											
6	損失角 Dissipation Factor(tan δ) (120Hz\+20 ⁰ C)	<table border="1"> <thead> <tr> <th>Working Voltage(V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>tanδ max.</td> <td>0.22</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.09</td> <td>0.08</td> </tr> </tbody> </table> For capacitance value > 1000 μ F, add 0.02 per another 1000 μ F	Working Voltage(V)	6.3	10	16	25	35	50	63	100	tan δ max.	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08									
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7	低溫度特性 (at 120 Hz) Characteristics at low temperature (Impedance ratio at 120Hz)	<table border="1"> <thead> <tr> <th>Working Voltage (V)</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> </tr> </thead> <tbody> <tr> <td>Z-25⁰C/+20⁰C</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40⁰C/+20⁰C</td> <td>8</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>4</td> <td>4</td> </tr> </tbody> </table>	Working Voltage (V)	6.3	10	16	25	35	50	63	100	Z-25 ⁰ C/+20 ⁰ C	4	3	2	2	2	2	2	2	Z-40 ⁰ C/+20 ⁰ C	8	4	3	3	3	3	4	4
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Z-40 ⁰ C/+20 ⁰ C	8	4	3	3	3	3	4	4																					
8	高溫負荷特性 High Temperature Loading	Application of DC rated working voltage at +105 ⁰ C, The capacitor shall meet the following limits: <table border="1"> <thead> <tr> <th>D\emptyset</th> <th>$\leq 8\emptyset$</th> <th>>8\emptyset</th> </tr> </thead> <tbody> <tr> <td>Life hours</td> <td>1000</td> <td>3000</td> </tr> </tbody> </table> Post test requirements at + 20 ⁰ C <table border="1"> <tbody> <tr> <td>Leakage current</td> <td>\leq the Initial specified value</td> </tr> <tr> <td>Capacitance change</td> <td>$\leq \pm 25\%$ of initial measured value</td> </tr> <tr> <td>Dissipation Factor(tanδ)</td> <td>$\leq 200\%$ of initial specified value</td> </tr> </tbody> </table>	D \emptyset	$\leq 8\emptyset$	>8 \emptyset	Life hours	1000	3000	Leakage current	\leq the Initial specified value	Capacitance change	$\leq \pm 25\%$ of initial measured value	Dissipation Factor(tan δ)	$\leq 200\%$ of initial specified value															
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9	高溫無負荷特性 Shelf Life	After 1000hrs. Application of DC no rated working voltage at +105 ⁰ C, The capacitor shall meet the following limits: Post test requirements at + 20 ⁰ C <table border="1"> <tbody> <tr> <td>Leakage current</td> <td>$\leq 200\%$ of initial specified value</td> </tr> <tr> <td>Capacitance change</td> <td>$\leq \pm 20\%$ of initial measured value</td> </tr> <tr> <td>Dissipation Factor(tanδ)</td> <td>$\leq 200\%$ of initial specified value</td> </tr> </tbody> </table>	Leakage current	$\leq 200\%$ of initial specified value	Capacitance change	$\leq \pm 20\%$ of initial measured value	Dissipation Factor(tan δ)	$\leq 200\%$ of initial specified value																					
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Multiplier for ripple current 紋波電流補正係數

Frequency Coefficient 周波數係數

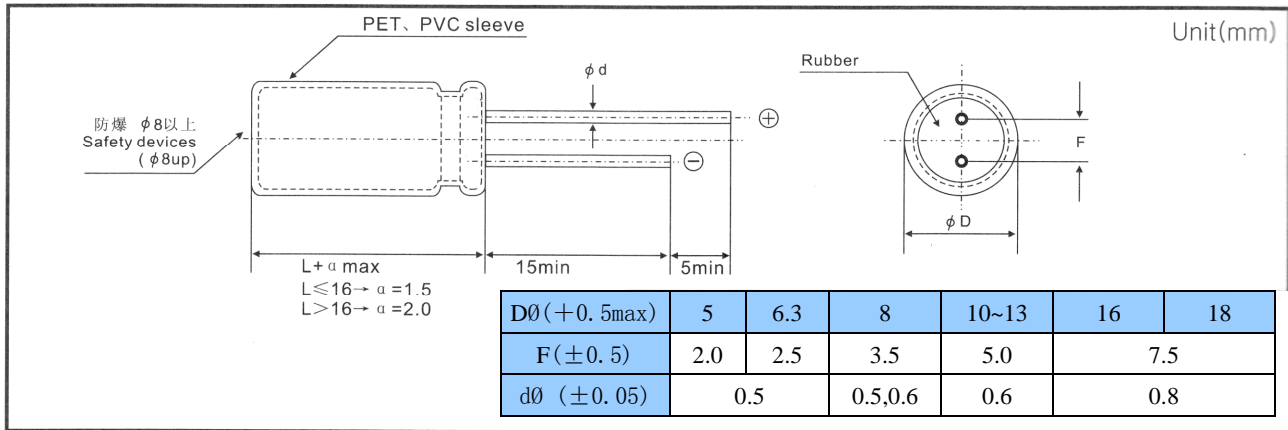
μ F \ Frequency	60 (50) Hz	120 Hz	400Hz	1K Hz	10K Hz	50~100K Hz
0.1~47	0.47	0.59	0.76	0.85	0.97	1.00
68~680	0.58	0.72	0.84	0.90	0.98	1.00
1000~4700	0.63	0.78	0.87	0.91	0.98	1.00

Temperature Coefficient 周圍溫度係數

Coefficient \ temperature (°C)	105	85	≤ 65
coefficient	1.0	1.7	2.1



LEH Series
Diagram of Dimensions



DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT 規格尺寸及最大允許紋波電流

WV (SV) uF Item	6.3 (8)			10 (13)			16 (20)			25 (32)		
	Case Size	Ripple Current	Impedance MAX	Case Size	Ripple Current	Impedance MAX	Case Size	Ripple Current	Impedance MAX	Case Size	Ripple Current	Impedance MAX
10										5×11	250	0.300
22							5×7	150	0.800	5×7	150	0.800
33				5×7	150	0.800				6.3×7	210	0.410
47										8×11	760	0.072
56							5×11	250	0.300			
68							5×11	210	0.410			
82	5×7	210	0.410									
100				5×11	250	0.300	6.3×7	300	0.320	8×7	400	0.200
							8×7	350	0.300	8×12	995	0.056
120							6.3×7	400	0.200			
							6.3×11	415	0.130			
150	6.3×7	400	0.200							8×12	550	0.150
	5×11	250	0.300									
180				6.3×7	400	0.200				8×16	1250	0.041
220				6.3×11	405	0.130	8×9	550	0.150	8×9	650	0.120
										10×16	1430	0.038
270	8×7	550	0.150									
330	6.3×11	405	0.130	8×7	550	0.150	8×9	650	0.120	8×12	730	0.100
							8×11	760	0.072	10×21	1820	0.023
390										10×12	820	0.068
470	8×9	650	0.120	8×9	650	0.120	8×11	625	0.100	10×16	1030	0.053
			8×14				880	0.080	13×21	2360	0.021	
			8×11				760	0.072	10×14	990	0.056	13×25
560	8×9	730	0.100				10×13	820	0.068			
	8×11	760	0.072									
680				8×12	730	0.100	10×13	1030	0.053	13×31	3290	0.016
				8×16	995	0.056	10×16	1250	0.041			
							10×16	1430	0.038			
820	10×12	820	0.068	10×12	820	0.068						
	10×16	995	0.056									
1000	10×13	1030	0.053	8×11	900	0.07	10×21	1820	0.023	13×16	1300	0.035
				10×13	1030	0.053				16×21	3140	0.018
				8×16	1250	0.041				16×26	3460	0.016
				10×16	1430	0.038						
1200	10×16	1250	0.041	10×21	1820	0.023	13×16	1300	0.035	13×16	1850	0.023
1500	10×21	1300	0.035	10×25	2150	0.022	13×21	1850	0.023	16×21	2200	0.021
2200	10×25	2150	0.022	13×21	1300	0.035	13×25	2200	0.021	16×21	2350	0.020
				13×16	1850	0.023	13×31	3290	0.016	16×26	2350	0.020
2700							16×21	3140	0.018			
3300	16×21	2200	0.021	13×26	2770	0.018	16×21	2350	0.020	16×26	2650	0.018
3900	13×25	2770	0.018	16×21	2200	0.021	16×21	2150	0.025			
				13×31	3140	0.018	16×26	3460	0.016			
4700	16×21	2350	0.020	16×21	2350	0.020	16×26	2650	0.018			

Case Size: ØD×L (mm; Ripple current (mA rms) at105°C, 100KHz Impedance[Ω] (25°C\100KHz)

LEH Series

Diagram of Dimensions

DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT 規格尺寸及最大允許紋波電流

W.V. (SV) Item μF	35 (44)			50 (63)			63 (79)			100 (125)		
	Case Size	Ripple Current	Impedance MAX	Case Size	Ripple Current	Impedance MAX	Case Size	Ripple Current	Impedance MAX	Case Size	Ripple Current	Impedance MAX
6.8										8×12	125	1.400
10	5×7	150	0.800	5×7	150	0.800						
15							6.3×11	165	0.880	8×12	205	0.570
22	6.3×7	210	0.410	6.3×11	238	0.340						
27										10×12	355	0.360
33	6.3×11	250	0.300				8×12	265	0.350			
39										10×16	450	0.250
47										10×16	450	0.240
56	6.3×11	405	0.130	6.3×11	385	0.140	8×12	500	0.220			
				8×12	500	0.220						
82							10×13	685	0.150	10×21	750	0.130
100	6.3×11	550	0.400	10×13	724	0.074				10×25	880	0.120
	8×7	650	0.350									
120				10×13	950	0.061	10×16	945	0.11	13×21	1045	0.094
150	8×9	650	0.120	10×13	979	0.061						
	8×11	760	0.072									
180				10×16	1190	0.046	10×21	1100	0.080	13×26	1195	0.071
220	8×14	780	0.070	10×16	1370	0.042	10×25	1300	0.073	13×31	1410	0.063
270	8×14	820	0.068	10×21	1580	0.030	13×21	1495	0.060	16×26	1600	0.053
330	8×16	700	0.080	10×25	1870	0.028	13×26	1850	0.043			
	10×13	1030	0.053									
390										16×32	1750	0.041
470	10×20	1820	0.028	13×21	2050	0.027	13×26	2250	0.039	18×32	1775	0.039
560				13×26	2410	0.023	16×26	2550	0.032	18×36	2060	0.031
680	13×16	1850	0.023	13×31	2860	0.021	18×21	2450	0.038			
820				13×36	2960	0.019	16×32	2810	0.026			
1000	16×21	2200	0.021	16×26	3010	0.021	18×32	3270	0.025			
1200							18×36	3310	0.020			
1500	16×21	2350	0.020									
1800	16×26	2350	0.020									
2200	16×26	2650	0.018									

Case Size: ØD×L (mm); Ripple current (mA rms) at 105°C, 100KHz Impedance[Ω] (25°C\100KHz)