

## Part Numbering System



① Category code

Type	Code
	1
Electrolytic Capacitor	E
Conductive Polymer	S

② Series code

Series name	Code	
	2	3
WH	W	H
CD11GE	G	E
CD11GES	G	X
CD11GAS	G	W
CD11GHS	G	S
NR	N	R
PZ	P	Z

③ Voltage code

WV (V <sub>dc</sub> )	Code	
	4	5
2.5	0	E
3	0	D
4	0	G
6.3	0	J
6.8	0	C
7	0	Q
7.5	0	A
10	1	A
12	1	T
16	1	C
25	1	E
35	1	V
40	1	G
50	1	H
63	1	J
80	1	B
100	1	K
120	2	B
160	2	C
180	2	L
200	2	D
220	2	N
250	2	E
315	2	F
350	2	V
380	2	P
400	2	G
420	2	T
450	2	W
500	2	H
550	2	J
600	2	K

④ Capacitance tolerance code

Tol. (%)	Code
	6
-10~+10	K
-20~+20	M
-10~+30	Q
-10~+20	V
0~+20	A
-5~+20	C
-10~-20	B
-5~+5	D
0~+10	E
-5~-20	F
-15~+5	N

⑤ Capacitance code

Cap (μF)	Code		
	7	8	9
0.10	R	1	0
0.22	R	2	2
0.33	R	3	3
0.47	R	4	7
0.68	R	6	8
1	0	1	0
2.2	2	R	2
3.3	3	R	3
4.7	4	R	7
6.8	6	R	8
10	1	0	0
22	2	2	0
33	3	3	0
47	4	7	0
68	6	8	0
100	1	0	1
220	2	2	1
330	3	3	1
470	4	7	1
680	6	8	1
1000	1	0	2
2200	2	2	2
3300	3	3	2
4700	4	7	2
6800	6	8	2
10000	1	0	3
22000	2	2	3
33000	3	3	3
68000	6	8	3

⑥ Size code

ΦD (mm)	Code
10	
4	C
5	D
6.3	E
8	F
10	G
11	H
12	J
12.5	W
13	K
14	X
16	L
18	M
19	Z
20	N
22	O
25	P
30	Q
35	R
40	Y
51.6	S
64.3	T
76.9	U
91	V
100	A

L (mm)	Code	
	11	12
5	0	5
7	0	7
11	1	1
12	1	2
16	1	6
20	2	0
25	2	5
30	3	0
35	3	5
40	4	0
46	4	6
50	5	0
60	6	0
80	8	0
100	A	0
115	B	5
120	C	0
130	D	0
140	E	0
160	G	0
200	K	0
220	M	0
236	N	6
250	P	0

⑦ Terminal code

Specification	Code	Size	
	13	14	15
Bulk packing	O	-	-
Taping (SMD Type)	D	0	0
Φ4~8 Taping F=5.0mm	P	5	0
Φ10~12.5 Taping F=5.0mm	B	5	0
Lead Cut L=3.5mm	C	3	5
Lead Cut L=11.0mm	C	B	0
Lead Forming & Cut L=4.5mm	F	-	-
Kink & Cut L=4.5mm	J	-	-
Snap-in type Terminal 4.0mm in length	K	-	-
Three Terminals	T	-	-
Ring clip mounting standard design	A	0	0
Ring clip mounting special design	S	-	-

⑧ Sleeve/Marking code

Sleeve/Marking	Code
	16
PVC	C
PET	T
Dark blue	B
Bright red	R
Sky-blue	S
Light blue	T
Pink	Z
Black	H
Purple-blue	V
Red	O

Lead Forming  
Taping Specifications

Fig.1 code: X



Fig.2 code: B



Fig.3 code: B



Fig.4 code: P



## Lead Forming

Specification Fig.1 & Fig.2 & Fig.3

Items	Symbol	Case size										Tolerance		
		4*5 4*7		5*5 5*7		5*11		6.3*5	6.3*7 6.3*9	6.3*11 6.3*12	8*5/7 8*9/11 8*11.5 8*12		8*16 8*20	10*9/12 10*12.5 10*13/16 10*20/25
Pin Code		X	B	X	B	X	B	B	B	B	B	B	B	
Lead wire diameter	Φd	0.45		0.45		0.5		0.45	0.5	0.5	0.45/0.5	0.6	0.6	±0.05
Pitch of body	P	12.7		12.7		12.7		12.7	12.7	12.7	12.7	12.7	12.7	±1.0
Feed hole pitch	P0	12.7		12.7		12.7		12.7	12.7	12.7	12.7	12.7	12.7	±0.2
Distance from hole center to lead	P1	5.1	5.6	5.1	5.35	5.1	5.35	5.1	5.1	5.1	4.6	4.6	3.85	±0.7
Distance from feed hole center to body center	P2	6.35		6.35		6.35		6.35	6.35	6.35	6.35	6.35	6.35	±1.0
Lead-to-lead distance	F	2.5	1.5	2.5	2.0	2.5	2.0	2.5	2.5	2.5	3.5	3.5	5.0	±0.5
Height of body from tape center	H	18.5		18.5		18.5		18.5	18.5	18.5	18.5	18.5	18.5	±0.75
Base tape width	W	18.0		18.0		18.0		18.0	18.0	18.0	18.0	18.0	18.0	±0.5
Adhesive tape width	W0	6.0		6.0		6.0		6.0	6.0	8.0	8.0	8.0	11.0	min
Hole position	W1	9.0		9.0		9.0		9.0	9.0	9.0	9.0	9.0	9.0	+0.75 -0.5
Hole down tape position	W2	3.0		3.0		3.0		3.0	3.0	3.0	3.0	3.0	3.0	max

Specification Fig.4

Items	Symbol	Case size									Tolerance
		4*5 4*7	5*5	5*7	5*11	6.3*5	6.3*7 6.3*9	6.3*11 6.3*12	8*5/7 8*9/11 8*11.5/12	8*16 8*20	
Pin Code		P	P	P	P	P	P	P	P	P	
Lead wire diameter	Φd	0.45	0.45	0.45	0.5	0.45	0.5	0.5	0.45/0.5	0.6	±0.05
Pitch of body	P	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	±1.0
Feed hole pitch	P0	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	±0.2
Distance from hole center to lead	P1	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	3.85	±0.7
Distance from feed hole center to body center	P2	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	6.35	±1.0
Lead-to-lead distance	F	1.5	2.0	2.0	2.0	2.5	2.5	2.5	3.5	3.5	±0.5
Lead to lead distance	F1	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	+0.8 -0.2
Height of body from tape center	H	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	18.5	±0.75
Lead wire clinch height	H0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	16.0	±0.5
Base tape width	W	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	±0.5
Adhesive tape width	W0	6.0	6.0	6.0	6.0	6.0	6.0	8.0	8.0	8.0	min
Hole position	W1	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	+0.75 -0.5
Hole down tape position	W2	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	max

**Lead Forming**

Lead Forming & Cut

Code:C  
RANGE:  $\Phi 4 \sim \Phi 18$



Code:F  
RANGE:  $\Phi 4 \sim \Phi 8$



$\Phi D$	F	L	$\Phi D$	F	L
4	1.5	3.0~12.0	4	5.0	3.5, 4.5, 5.0, 7.0
5	2.0	3.0~12.0	5	5.0	3.5, 4.5, 5.0, 7.0
6.3	2.5	3.0~12.0	6.3	5.0	3.5, 4.5, 5.0, 7.0
8	3.5	3.0~12.0	8	5.0	3.5, 4.5, 5.0, 7.0
10	5.0	3.0~12.0	-	-	-
12.5	5.0	3.0~12.0	-	-	-
16	7.5	3.0~12.0	-	-	-
18	7.5	3.0~12.0	-	-	-

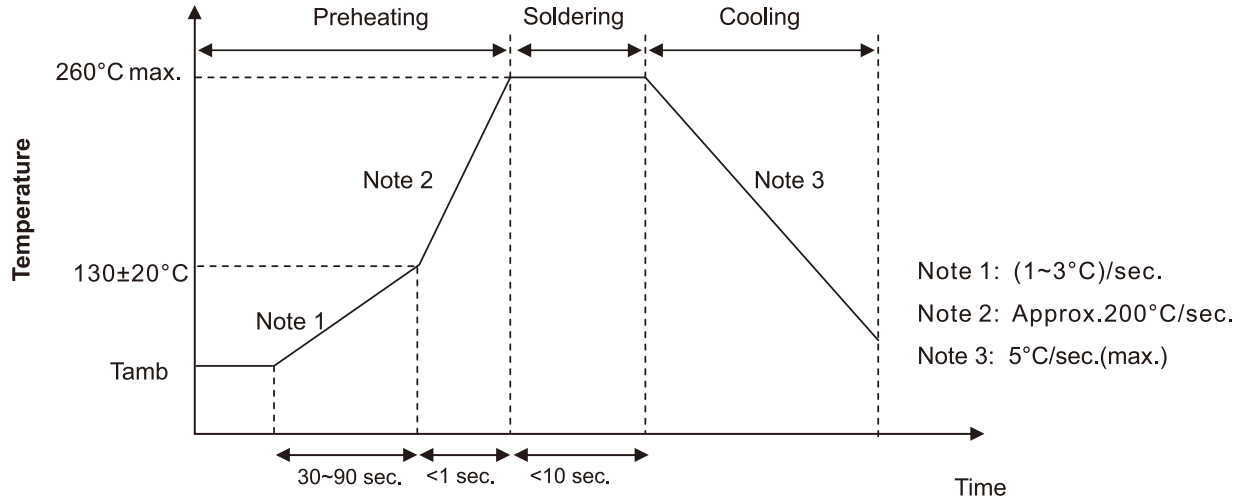
Code:J  
RANGE:  $\Phi 10 \sim \Phi 18$



$\Phi D$	F	L
10	5.0	4.0, 4.5, 5.0
12.5	5.0	4.0, 4.5, 5.0
16	7.5	4.0, 4.5, 5.0
18	7.5	4.0, 4.5, 5.0

### Solering Recommendation

■ Flow Soldering(Radial Lead Type)



■ Reflow Soldering

- (For Polymer SMD Type)

#### Recommended Reflow Profile



Item	Preheating	T1(°C)	T2(°C)	T3(°C)	t1(sec.)	t2(sec.)	t3(sec.)	Reflow cycle
Condition 1	150°C to 180°C Within 90sec.	≤260	230	200	≤10	≤40	≤60	1
Condition 2		≤250	230	200	≤10	≤40	≤60	2

● (For Liquid SMD Type)

Case size:  $\Phi 6.3$ – $\Phi 10$ mm:

- Temperature at surface of capacitor shall not exceed  $T^{\circ}\text{C}$ .
- The duration for over  $200^{\circ}\text{C}$  temperature and  $T_1^{\circ}\text{C}$  at surface of capacitor shall not exceed  $t$  and  $t_1$  seconds, respectively.
- Preheat shall be done at  $100^{\circ}\text{C}$  to  $200^{\circ}\text{C}$  and for Maximum 180 seconds.

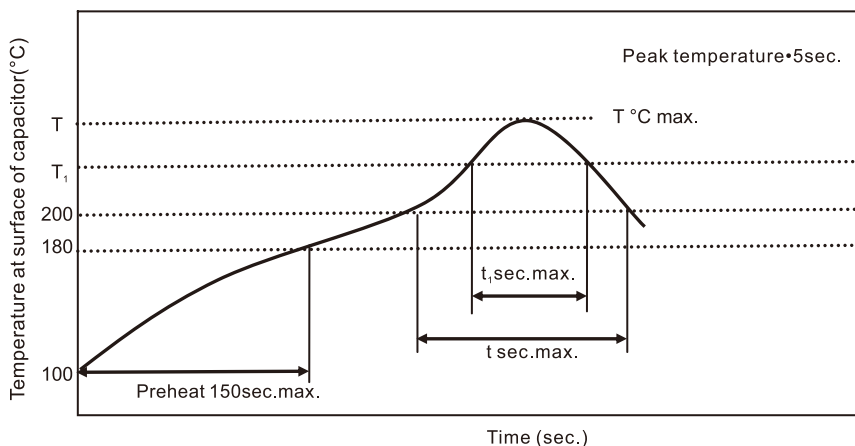


Case size (mm)	$T(^{\circ}\text{C})$ ①	$T_1(^{\circ}\text{C})$	$t(\text{sec.})$ ②	$t_1(\text{sec.})$ ③	Reflow cycle
$\Phi 6.3$	250	230	90	40	1
$\Phi 8$	240	230	90	30	1
$\Phi 10$	235	230	60	30	1

- ① Peak temperature
- ② The duration over  $200^{\circ}\text{C}$  (max.)
- ③ The duration over  $T_1^{\circ}\text{C}$
- Please contact us if capacitors are subject to the conditions other than the allowable range of reflow.

Case size:  $\Phi 12.5$ – $\Phi 18$ mm:

- Temperature at surface of capacitor shall not exceed  $T^{\circ}\text{C}$ .
- The duration for over  $200^{\circ}\text{C}$  temperature and  $T_1^{\circ}\text{C}$  at surface of capacitor shall not exceed  $t$  and  $t_1$  seconds, respectively.
- Preheat shall be done at  $100^{\circ}\text{C}$  to  $180^{\circ}\text{C}$  and for Maximum 150 seconds.



Case size (mm)	$T(^{\circ}\text{C})$ ①	$T_1(^{\circ}\text{C})$	$t(\text{sec.})$ ②	$t_1(\text{sec.})$ ③	Reflow cycle
$\Phi 12.5$ – $\Phi 18$	240	230	60	30	1

- ① Peak temperature
- ② The duration over  $200^{\circ}\text{C}$  (max.)
- ③ The duration over  $T_1^{\circ}\text{C}$
- Please contact us if capacitors are subject to the conditions other than the allowable range of reflow.

## LH series

- Withstand high temperature, for general purpose
- Endurance: 2,000 hours at 105°C
- RoHS Compliant

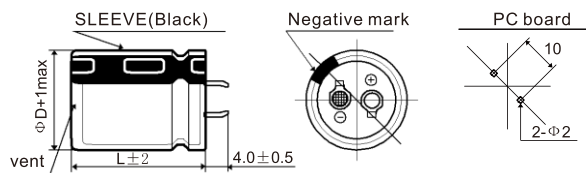


### SPECIFICATIONS

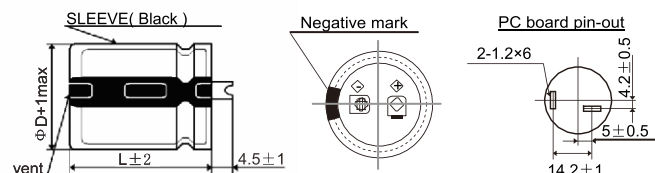
Items	Characteristics											
	-40~+105°C						-25~+105°C					
Category Temperature Range	-40~+105°C						-25~+105°C					
Rated Voltage Range	10~100V.DC						160~500V.DC					
Capacitance Tolerance	±20% (M)						(at 20°C, 120Hz)					
Leakage Current	I ≤ 3√CV Where, I: Max.leakage current (µA), C: Nominal capacitance (µF), V: Rated voltage (V) (at 20°C after 5 minutes)											
Dissipation Factor (tanδ)	Rated Voltage (V <sub>dc</sub> )	10	16	25	35	50	63	80	100	160 to 250	315 to 450	500
	tanδ (max.)	0.55	0.50	0.45	0.40	0.35	0.30	0.25	0.20	0.15	0.15	0.20
Low Temperature Characteristics (Max. Impedance Ratio)	Rated Voltage (V <sub>dc</sub> )	10	16	25	35	50	63	80	100	160 to 250	315 to 400	420 to 500
	Z(-25°C)/Z(+20°C)	4	4	3	3	2	2	2	2	4	8	8
	Z(-40°C)/Z(+20°C)	15	15	10	8	6	6	5	5	-	-	-
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage plus the rated ripple current is applied for 2,000 hours at 105°C.											
	Capacitance Change	≤±20% of the initial value										
	D.F. (tanδ)	≤200% of the initial specified value										
	Leakage Current	≤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	≤±20% of the initial value										
	D.F. (tanδ)	≤150% of the initial specified value										
	Leakage Current	≤200% of the initial specified value										

### DIMENSIONS [mm]

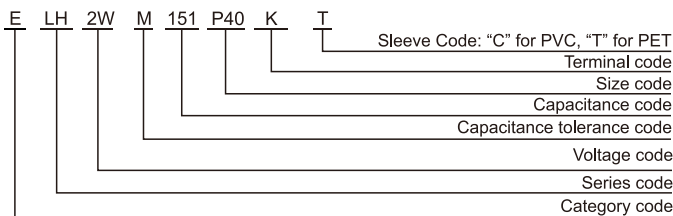
- Terminal Code : K (Φ22 to Φ35) : Standard



- Terminal Code : L (Φ35)



### PART NUMBERING SYSTEM



### RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current (Hz)

W.V	120	1k	10k	100k
10~50	1.00	1.03	1.05	1.08
63~100	1.00	1.07	1.13	1.19
160~250	1.00	1.32	1.45	1.50
315~500	1.00	1.30	1.41	1.43

The endurance of capacitors is shortened 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.

# LH series

■ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)
10(1A)	10000	22*25	0.55	1.77
	12000	22*30	0.55	2.10
		25*25	0.55	1.94
	15000	22*35	0.55	2.23
		25*30	0.55	2.10
	18000	22*40	0.55	2.41
		25*30	0.55	2.34
		30*25	0.55	2.25
		22*45	0.55	2.58
	22000	25*35	0.55	2.54
		30*30	0.55	2.50
	27000	22*50	0.55	3.17
		25*40	0.55	3.07
		30*30	0.55	2.95
	33000	25*45	0.55	3.39
		30*35	0.55	3.33
35*30		0.55	3.21	
39000	30*40	0.55	3.70	
	35*35	0.55	3.68	
47000	30*45	0.55	4.22	
	35*40	0.55	4.16	
56000	35*45	0.55	5.00	
16(1C)	6800	22*25	0.50	1.75
	8200	22*30	0.50	2.00
		22*30	0.50	2.10
	10000	25*25	0.50	2.05
		22*35	0.50	2.31
		25*30	0.50	2.30
	12000	30*25	0.50	2.30
		22*40	0.50	2.68
		25*35	0.50	2.58
	15000	30*30	0.50	2.57
		22*50	0.50	3.20
		25*40	0.50	3.16
	18000	30*30	0.50	2.98
		25*45	0.50	3.36
		30*35	0.50	3.30
	22000	35*30	0.50	3.25
		25*50	0.50	3.85
		30*40	0.50	3.80
	27000	35*35	0.50	3.93
		30*45	0.50	4.30
		35*35	0.50	4.27
	33000	30*50	0.50	4.81
		35*40	0.50	4.80
	47000	35*45	0.50	5.53

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)
25(1E)	4700	22*25	0.45	1.61
	5600	22*30	0.45	1.80
		22*35	0.45	2.09
	6800	25*25	0.45	1.87
		22*40	0.45	2.31
	8200	25*30	0.45	2.34
		30*25	0.45	2.16
		22*45	0.45	2.65
	10000	25*35	0.45	2.61
		30*30	0.45	2.61
	12000	22*50	0.45	2.80
		25*40	0.45	2.81
		30*30	0.45	2.74
	15000	25*45	0.45	3.27
		30*35	0.45	3.13
		35*30	0.45	3.26
18000	30*40	0.45	3.56	
	35*35	0.45	3.84	
22000	30*45	0.45	4.04	
	35*35	0.45	3.75	
27000	35*45	0.45	4.74	
33000	35*50	0.45	5.50	
35(1V)	3300	22*25	0.40	1.45
	3900	22*30	0.40	1.69
		22*35	0.40	2.02
	4700	25*25	0.40	1.62
		22*35	0.40	2.13
	5600	25*30	0.40	2.00
		22*40	0.40	2.41
		25*35	0.40	2.31
	6800	30*25	0.40	2.31
		22*50	0.40	2.85
		25*40	0.40	2.73
	8200	30*30	0.40	2.75
		25*45	0.40	3.05
		30*35	0.40	3.05
	10000	25*50	0.40	3.37
		30*40	0.40	3.23
35*30		0.40	3.19	
15000	30*45	0.40	3.72	
	35*35	0.40	3.67	
18000	35*40	0.40	4.37	
22000	35*45	0.40	4.92	

Snap-in&Lug Terminal Type



## LH series

■ STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C, 120Hz)
50(1H)	1800	22*25	0.35	1.34
	2200	22*30	0.35	1.60
	2700	22*30	0.35	1.70
		25*25	0.35	1.70
	3300	22*35	0.35	1.97
		25*30	0.35	1.88
	3900	22*40	0.35	2.22
		25*30	0.35	2.20
		30*25	0.35	1.95
	4700	22*45	0.35	2.43
		25*35	0.35	2.43
		30*30	0.35	2.25
	5600	22*50	0.35	2.75
		25*40	0.35	2.72
		30*30	0.35	2.64
	6800	25*45	0.35	3.30
		30*35	0.35	3.30
	8200	35*30	0.35	3.25
30*40		0.35	3.60	
10000	35*35	0.35	3.60	
	30*50	0.35	4.05	
12000	35*40	0.35	4.04	
	35*45	0.35	4.56	
15000	35*50	0.35	4.77	
63(1J)	1200	22*25	0.30	1.20
	1500	22*30	0.30	1.47
	1800	22*30	0.30	1.58
		25*25	0.30	1.52
	2200	22*35	0.30	1.82
		25*30	0.30	1.75
	2700	22*40	0.30	2.07
		25*35	0.30	2.11
		30*25	0.30	1.72
	3300	22*45	0.30	2.33
		25*35	0.30	2.27
		30*30	0.30	2.24
	3900	25*40	0.30	2.51
		30*35	0.30	2.55
	4700	25*50	0.30	2.97
		30*40	0.30	2.86
		35*30	0.30	2.80
	5600	30*40	0.30	3.22
35*35		0.30	3.20	
6800	30*50	0.30	3.65	
	35*40	0.30	3.65	
8200	35*45	0.30	4.04	
10000	35*50	0.30	4.48	

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C, 120Hz)
80(1B)	1000	22*25	0.25	1.19
	1200	22*30	0.25	1.44
	1500	22*30	0.25	1.59
		25*52	0.25	1.59
	1800	22*35	0.25	1.79
		25*30	0.25	1.71
	2200	22*40	0.25	2.03
		25*35	0.25	1.98
		30*25	0.25	1.98
	2700	22*45	0.25	2.39
		25*40	0.25	2.35
		30*30	0.25	2.35
	3300	25*45	0.25	2.64
		30*35	0.25	2.61
		35*30	0.25	2.74
	3900	25*50	0.25	2.92
		30*40	0.25	2.82
	4700	35*30	0.25	2.97
30*45		0.25	3.34	
5600	35*35	0.25	3.38	
	30*50	0.25	3.80	
6800	35*40	0.25	3.80	
	35*45	0.25	3.90	
8200	35*50	0.25	4.20	
100(1K)	680	22*25	0.20	1.09
	820	22*30	0.20	1.32
	1000	22*30	0.20	1.47
		25*25	0.20	1.45
	1200	22*35	0.20	1.69
		25*30	0.20	1.68
	1500	22*40	0.20	1.97
		25*35	0.20	1.98
		30*25	0.20	1.95
	1800	22*45	0.20	2.23
		25*40	0.20	2.20
		30*30	0.20	2.20
	2200	25*45	0.20	2.53
		30*35	0.20	2.55
		35*30	0.20	2.50
	2700	25*50	0.20	2.82
		30*40	0.20	2.86
		35*35	0.20	2.89
3300	30*45	0.20	3.30	
	35*35	0.20	3.25	
3900	30*50	0.20	3.60	
	35*40	0.20	3.67	
4700	35*45	0.20	3.80	
5600	35*50	0.20	4.05	

# LH series

■ STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C, 120Hz)
160(2C)	220	22*25	0.15	0.92
	330	22*25	0.15	1.03
	390	22*30	0.15	1.17
	470	22*30	0.15	1.28
		25*25	0.15	1.29
	560	22*35	0.15	1.45
		25*30	0.15	1.49
	680	22*40	0.15	1.64
		25*35	0.15	1.70
		30*25	0.15	1.63
	820	22*45	0.15	1.85
		25*40	0.15	1.92
		30*30	0.15	1.91
	1000	25*45	0.15	2.17
		30*35	0.15	2.19
		25*50	0.15	2.43
	1200	30*40	0.15	2.48
		35*30	0.15	2.25
		30*45	0.15	2.82
	1500	35*35	0.15	2.62
30*50		0.15	3.13	
35*40		0.15	2.97	
2200	35*45	0.15	3.34	
180(2L)	270	22*25	0.15	0.97
	330	22*30	0.15	1.13
	390	22*30	0.15	1.32
		25*25	0.15	1.33
	470	22*35	0.15	1.39
		25*30	0.15	1.43
	560	22*40	0.15	1.56
		25*30	0.15	1.53
		30*25	0.15	1.56
	680	22*45	0.15	1.76
		25*35	0.15	1.76
		30*30	0.15	1.74
	820	22*50	0.15	1.97
		25*40	0.15	1.99
		30*30	0.15	1.93
	1000	25*45	0.15	2.24
		30*35	0.15	2.24
		35*30	0.15	2.20
	1200	30*40	0.15	2.53
		35*35	0.15	2.54
30*50		0.15	3.03	
1500	35*40	0.15	2.91	
	35*45	0.15	3.25	
2200	35*50	0.15	3.62	

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C, 120Hz)
200(2D)	270	22*25	0.15	0.99
	330	22*30	0.15	1.20
		25*25	0.15	1.20
	390	22*35	0.15	1.30
		25*30	0.15	1.34
	470	22*40	0.15	1.44
		25*30	0.15	1.44
		30*25	0.15	1.48
	560	22*45	0.15	1.60
		25*35	0.15	1.60
		30*30	0.15	1.60
	680	22*50	0.15	1.75
		25*40	0.15	1.76
		30*30	0.15	1.74
	820	25*45	0.15	2.10
		30*35	0.15	2.11
		35*30	0.15	2.10
	1000	25*50	0.15	2.36
		30*40	0.15	2.40
		35*35	0.15	2.30
1200	30*45	0.15	2.69	
	35*35	0.15	2.53	
	1500	35*40	0.15	2.97
1800	35*50	0.15	3.45	
220(2N)	220	22*25	0.15	0.94
	270	22*30	0.15	1.09
	330	22*35	0.15	1.24
		25*25	0.15	1.14
	390	22*35	0.15	1.30
		25*25	0.15	1.26
	470	22*40	0.15	1.41
		25*30	0.15	1.39
		30*25	0.15	1.37
	560	22*45	0.15	1.60
		25*35	0.15	1.56
		30*30	0.15	1.61
	680	35*25	0.15	1.52
		25*40	0.15	1.75
		30*35	0.15	1.76
	820	35*30	0.15	1.72
		25*45	0.15	1.97
		30*40	0.15	2.06
	1000	35*30	0.15	1.95
		30*45	0.15	2.44
35*35		0.15	2.20	
1200	35*40	0.15	2.37	
1500	30*45	0.15	2.64	

Snap-in&Lug Terminal Type

## LH series

■ STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)
250(2E)	180	22*25	0.15	0.84
	220	22*30	0.15	0.97
		25*25	0.15	0.99
	270	22*35	0.15	1.11
		25*30	0.15	1.15
	330	22*40	0.15	1.26
		25*30	0.15	1.26
		30*25	0.15	1.31
	390	22*45	0.15	1.41
		25*35	0.15	1.42
		30*30	0.15	1.50
	470	22*50	0.15	1.58
		25*40	0.15	1.61
		30*30	0.15	1.61
	560	25*45	0.15	1.80
		30*35	0.15	1.84
	680	25*50	0.15	2.03
		30*40	0.15	2.09
		35*30	0.15	1.96
	820	30*45	0.15	2.35
35*35		0.15	2.26	
1000	30*50	0.15	2.64	
	35*40	0.15	2.57	
1200	35*45	0.15	2.88	
315(2F)	120	22*25	0.15	0.56
	150	22*30	0.15	0.66
		25*25	0.15	0.65
	180	22*35	0.15	0.78
		25*30	0.15	0.71
	220	22*40	0.15	0.89
		25*30	0.15	0.85
		30*25	0.15	0.83
	270	22*45	0.15	1.01
		25*35	0.15	0.98
		30*30	0.15	1.01
	330	22*50	0.15	1.14
		25*40	0.15	1.12
		30*35	0.15	1.21
	390	25*45	0.15	1.31
		30*35	0.15	1.30
		35*30	0.15	1.23
	470	30*40	0.15	1.53
		35*35	0.15	1.47
	560	30*45	0.15	1.65
35*40		0.15	1.66	
680	35*45	0.15	1.96	
820	35*50	0.15	2.19	

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C,120Hz)
350(2V)	100	22*25	0.15	0.53
	120	22*30	0.15	0.61
		25*25	0.15	0.62
	150	22*35	0.15	0.73
		25*30	0.15	0.73
	180	22*40	0.15	0.83
		25*30	0.15	0.80
		30*25	0.15	0.81
	220	22*45	0.15	0.94
		25*35	0.15	0.92
		30*30	0.15	0.98
	270	22*50	0.15	1.07
		25*40	0.15	1.05
		30*30	0.15	1.03
	330	25*45	0.15	1.24
		30*35	0.15	1.24
		35*30	0.15	1.18
	390	25*50	0.15	1.38
		30*40	0.15	1.39
		35*35	0.15	1.39
470	30*45	0.15	1.57	
	35*35	0.15	1.50	
560	30*50	0.15	1.75	
	35*40	0.15	1.69	
680	35*45	0.15	1.96	
385(2P)	68	22*25	0.15	0.45
	82	22*30	0.15	0.52
	100	22*30	0.15	0.58
		25*25	0.15	0.57
	120	22*35	0.15	0.68
		25*30	0.15	0.68
	150	22*40	0.15	0.79
		25*30	0.15	0.78
		30*25	0.15	0.75
	180	22*45	0.15	0.89
		25*35	0.15	0.86
		30*30	0.15	0.88
	220	22*50	0.15	1.01
		25*40	0.15	1.00
		30*30	0.15	1.00
	270	25*45	0.15	1.13
		30*40	0.15	1.14
		35*30	0.15	1.10
	330	30*45	0.15	1.31
		35*35	0.15	1.32
390	30*50	0.15	1.48	
	35*40	0.15	1.48	
470	35*45	0.15	1.76	
560	35*50	0.15	1.95	

# LH series

■ STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C, 120Hz)
400(2G)	68	22*25	0.15	0.49
	82	22*30	0.15	0.56
	100	22*30	0.15	0.62
		25*25	0.15	0.61
	120	22*35	0.15	0.73
		25*30	0.15	0.73
	150	22*40	0.15	0.85
		25*35	0.15	0.85
		30*25	0.15	0.79
	180	22*45	0.15	0.95
		25*35	0.15	0.92
		30*30	0.15	0.95
	220	22*50	0.15	1.08
		25*40	0.15	1.05
		30*35	0.15	1.24
	270	25*50	0.15	1.29
		30*40	0.15	1.30
		35*30	0.15	1.18
	330	30*45	0.15	1.47
		35*35	0.15	1.40
390	30*50	0.15	1.64	
	35*40	0.15	1.59	
470	35*45	0.15	1.68	
560	35*50	0.15	1.90	
420(2T)	68	22*25	0.15	0.50
	82	22*30	0.15	0.56
		25*25	0.15	0.56
	100	22*30	0.15	0.63
		25*25	0.15	0.63
	120	22*35	0.15	0.73
		25*30	0.15	0.72
		30*25	0.15	0.75
	150	22*45	0.15	0.86
		25*35	0.15	0.83
		30*25	0.15	0.83
	180	22*50	0.15	1.02
		25*40	0.15	0.94
		30*30	0.15	0.95
		35*25	0.15	0.90
	220	25*45	0.15	1.13
		30*35	0.15	1.09
		35*30	0.15	1.05
	270	25*50	0.15	1.37
		30*40	0.15	1.25
		35*35	0.15	1.25
	330	30*45	0.15	1.49
		35*35	0.15	1.42
	390	30*50	0.15	1.67
		35*40	0.15	1.61
	470	35*45	0.15	1.86

WV (V <sub>dc</sub> )	Cap (μF)	Size ΦDxL(mm)	tanδ	Rated ripple current (Arms/105°C, 120Hz)
450(2W)	56	22*25	0.15	0.42
	68	22*30	0.15	0.50
		25*25	0.15	0.50
	82	22*35	0.15	0.56
		25*30	0.15	0.57
	100	22*40	0.15	0.64
		25*30	0.15	0.63
		30*25	0.15	0.67
	120	22*45	0.15	0.72
		25*35	0.15	0.71
		30*30	0.15	0.77
	150	22*50	0.15	0.80
		25*40	0.15	0.82
		30*30	0.15	0.85
	180	25*45	0.15	0.93
		30*35	0.15	0.97
		25*50	0.15	1.05
	220	30*40	0.15	1.10
		35*30	0.15	1.01
	270	30*45	0.15	1.25
35*35		0.15	1.26	
330	30*50	0.15	1.42	
	35*40	0.15	1.44	
390	35*45	0.15	1.61	
470	35*50	0.15	1.80	
500(2H)	47	22*25	0.20	0.41
	56	22*30	0.20	0.43
		25*25	0.20	0.43
	68	22*30	0.20	0.52
		25*25	0.20	0.55
	82	22*35	0.20	0.62
		25*30	0.20	0.57
	100	22*45	0.20	0.68
		25*30	0.20	0.72
	120	22*50	0.20	0.76
		25*35	0.20	0.79
		30*30	0.20	0.91
	150	25*45	0.20	1.08
		30*35	0.20	1.04
		35*25	0.20	0.99
	180	25*50	0.20	1.20
		30*40	0.20	1.17
		35*30	0.20	1.10
	220	30*45	0.20	1.33
		35*35	0.20	1.23
	270	30*50	0.20	1.50
		35*40	0.20	1.42
	330	35*45	0.20	1.60
	390	35*50	0.20	1.78
	470	35*60	0.20	2.03

Snap-in&Lug Terminal Type