



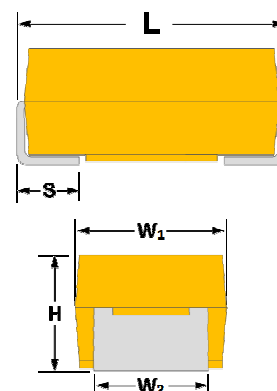
Product characteristics

- Epoxy resin molded package, sheet, small size, light weight, easy to integrate, polarity;
- Lower ESR than conventional chip tantalum capacitors, stable electrical and storage performance, long working life;
- Typical applications include terminal decoupling and filtering applications in industrial automation and automotive electronics, such as DC/DC converters, portable electronics, communication electronics, and control units;



Overall dimensions (mm)

Shell number	EIA English code	EIA metric code	L	W ₁	H	S	W ₂
A	1206	3216 - 18	3.30±0.20	1.70±0.20	1.80±0.20	0.70±0.20	1.20±0.20
B	1210	3528 - 21	3.60±0.20	2.90±0.20	2.10±0.20	0.70±0.20	2.20±0.20
C	2312	6032 - 28	6.20±0.20	3.30±0.20	2.60±0.20	1.30±0.20	2.20±0.20
D	2917	7343 - 31	7.40±0.20	4.40±0.20	3.00±0.20	1.30±0.20	2.40±0.20
E	2917	7343 - 43	7.40±0.40	4.40±0.40	4.30±0.40	1.30±0.20	2.40±0.20
V	2924	7360 - 38	7.50±0.40	6.20±0.40	3.80±0.40	1.40±0.20	3.00±0.20



Product code

HL45L - B 6R3 M 107 T E700

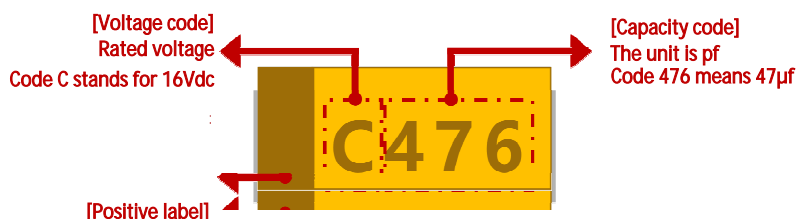
Model number
separator
Case size
See table above
Dc rated voltage
004=4Vdc;6R3=6.3Vdc;010=10Vdc;016=16Vdc;020=20Vdc;025=25Vdc;035=35Vdc;050=50Vdc.
Capacity tolerance
K=±10%
M=±20%
Capacity code
The first 2 digits are significant digits in pF, and the third digit is an exponent. (i.e. how many zeros are followed by a significant number)
Packing method
T = braid
ESR
The last 3 digits are ESR values, in m (700=700 m).

Environmental statement

The RoHS Declaration (6/6) is in compliance with the requirements of Directive 2002/95/EC, which stipulates the use of 100%Sn solders, gold-coated or non-magnetic 100%Sn solders.



Product identification



Technical characteristics

Technical parameter	All technical parameters were measured at 1 atmosphere at +25 ° C									
Capacity range	0.47µF ~ 1000µF									
Capacity tolerance	±10%; ±20%;									
Rated voltage(VR)	≤+85℃:	4	6.3	10	16	20	25	35	50	
Class voltage(VC)	≤+125℃:	2.7	4	6.3	10	15	17	23	33	
Surge voltage(VS)	≤+85℃:	5.2	8	13	20	26	32	46	65	
Surge voltage(VS)	≤+125℃:	3.4	5	8	13	16	20	28	40	
Temperature range	-55℃ to+125℃									
Extraction coating	Tin coating (standard), gold coating or tin lead coating to make additional requirements									



Product specification shell number comparison table
(Case number and ESR)

Rated voltage (V)	4	6.3	10	16
Capacity value (μF)	Shell number & ESR			
6.8				A(2000), B(1200)
10			A(1800)	A(1700), B(1200)
15			A(1000), B(600)	B(800), C(600)
22			A(1200), B(400)	B(700), C(500), D(500)
33		A(1500), B(600)	B(450), C(400), D(300)	C(500), D(300)
47	A(1500), B(900)	B(600), C(300)	B(500), C(400), D(300)	C(300), D(300), E(200)
68	B(1000), C(600)	B(500), C(500), D(250)	C(200), D(150)	C(1000), D(200), E(200)
100	B(450), C(500)	B(400), C(300), D(300)	C(250), D(200), E(150)	C(800), D(200), E(200)
150	C(500), D(350), E(200)	C(300), D(300), E(150)	D(200), E(150)	D(500), E(200)
220	C(500), D(300), E(100)	C(200), D(150), E(150)	D(200), E(200), V(200)	E(200), V(200)
330	D(400), E(200), V(200)	D(150), E(150)	D(150), E(150), V(150)	E(180), V(180)
470	D(200), E(150), V(150)	E(150)	E(150)	E(450)
680	E(150)	E(150)	E(150)	
1000	E(150)			

Continue form

Rated voltage (V)	20	25	35	50
Capacity value (μF)	Shell number & ESR			
0.47			A(4000), A(8000)	A(3000)
0.68			A(6000), A(7000)	B(3000)
1			A(6000), B(2500)	B(2500), C(1800)
1.5		A(4500), B(3000)	B(3000), C(2500)	C(1800), D(1000)
2.2		A(3000), B(2500)	B(2500), C(2000)	C(1500), D(700)
3.3	A(4000), B(3000)	B(2000), C(1200)	B(2500), C(1200)	C(700), D(700)
4.7	A(2500), B(1500), C(1000)	B(1000), C(1000)	B(2000), C(800), D(700)	C(700), D(600)
6.8	B(1000), C(800)	B(2000), C(1000), D(700)	C(700), D(600)	D(600), E(500)
10	B(1200), C(600), D(500)	B(1500), C(900), D(450)	C(700), D(400)	D(400), E(400)
15	B(1500), C(800), D(600)	C(500), D(400)	D(350), E(300)	E(400)
22	C(600), D(400)	C(800), D(400)	D(400), E(300)	E(400)
33	C(600), D(400)	D(300), E(250)	D(500), E(300)	
47	C(300), D(250), E(250)	D(350), E(300)	D(400), E(400)	
68	D(250), E(250)	E(250), V(250)	E(800)	
100	D(300), E(250)	E(200), V(200)		
150	D(450), E(180)	E(600), V(300)		
220	E(450), V(250)			
330	E(450), V(450)			



Product code and parameter specification

Product code	Rated voltage (V)	Nominal capacity (μF)	Shell number	Rated temperature (°C)	Class temperature (°C)	Class voltage (V)	Maximum leakage current (μA) @25°C	Maximum loss (%) @ 25 100Hz	ESR maximum (mΩ) @ 25 100kHz	Maximum allowable ripple current @100kHzRMS(A)		
										25°C	85°C	125°C
HL45L-A004#476TE1k5	4	47	A	85	125	2.7	1.9	11	1500	0.208	0.125	0.083
HL45L-B004#476TE900	4	47	B	85	125	2.7	1.9	8	900	0.289	0.173	0.115
HL45L-B004#686TE1k0	4	68	B	85	125	2.7	2.7	8	1000	0.274	0.164	0.110
HL45L-C004#686TE600	4	68	C	85	125	2.7	2.7	6	600	0.387	0.232	0.155
HL45L-B004#107TE450	4	100	B	85	125	2.7	4.0	10	450	0.408	0.245	0.163
HL45L-C004#107TE500	4	100	C	85	125	2.7	4.0	10	500	0.424	0.255	0.170
HL45L-C004#157TE500	4	150	C	85	125	2.7	6.0	10	500	0.424	0.255	0.170
HL45L-D004#157TE350	4	150	D	85	125	2.7	6.0	8	350	0.548	0.329	0.219
HL45L-E004#157TE200	4	150	E	85	125	2.7	6.0	8	200	0.791	0.474	0.316
HL45L-C004#227TE500	4	220	C	85	125	2.7	8.8	12	500	0.424	0.255	0.170
HL45L-D004#227TE300	4	220	D	85	125	2.7	8.8	10	300	0.592	0.355	0.237
HL45L-E004#227TE100	4	220	E	85	125	2.7	8.8	10	100	1.118	0.671	0.447
HL45L-D004#337TE400	4	330	D	85	125	2.7	13.2	14	400	0.512	0.307	0.205
HL45L-E004#337TE200	4	330	E	85	125	2.7	13.2	12	200	0.791	0.474	0.316
HL45L-V004#337TE200	4	330	V	85	125	2.7	13.2	12	200	0.866	0.520	0.346
HL45L-D004#477TE200	4	470	D	85	125	2.7	18.8	14	200	0.725	0.435	0.290
HL45L-E004#477TE150	4	470	E	85	125	2.7	18.8	12	150	0.913	0.548	0.365
HL45L-V004#477TE150	4	470	V	85	125	2.7	18.8	12	150	1.000	0.600	0.400
HL45L-E004#687TE150	4	680	E	85	125	2.7	27.2	14	150	0.913	0.548	0.365
HL45L-E004#108TE150	4	1000	E	85	125	2.7	40.0	15	150	0.913	0.548	0.365
HL45L-A6R3#336TE1k5	6.3	33	A	85	125	4	2.1	8	1500	0.208	0.125	0.083
HL45L-B6R3#336TE600	6.3	33	B	85	125	4	2.1	8	600	0.354	0.212	0.141
HL45L-B6R3#476TE600	6.3	47	B	85	125	4	3.0	8	600	0.354	0.212	0.141
HL45L-C6R3#476TE300	6.3	47	C	85	125	4	3.0	6	300	0.548	0.329	0.219
HL45L-B6R3#686TE500	6.3	68	B	85	125	4	4.3	10	500	0.387	0.232	0.155
HL45L-C6R3#686TE500	6.3	68	C	85	125	4	4.3	8	500	0.424	0.255	0.170
HL45L-D6R3#686TE250	6.3	68	D	85	125	4	4.3	6	250	0.648	0.389	0.259
HL45L-B6R3#107TE400	6.3	100	B	85	125	4	6.3	14	400	0.433	0.260	0.173
HL45L-C6R3#107TE300	6.3	100	C	85	125	4	6.3	8	300	0.548	0.329	0.219
HL45L-D6R3#107TE300	6.3	100	D	85	125	4	6.3	8	300	0.592	0.355	0.237
HL45L-C6R3#157TE300	6.3	150	C	85	125	4	9.5	12	300	0.548	0.329	0.219
HL45L-D6R3#157TE300	6.3	150	D	85	125	4	9.5	10	300	0.592	0.355	0.237
HL45L-E6R3#157TE150	6.3	150	E	85	125	4	9.5	10	150	0.913	0.548	0.365
HL45L-C6R3#227TE200	6.3	220	C	85	125	4	13.9	14	200	0.671	0.402	0.268
HL45L-D6R3#227TE150	6.3	220	D	85	125	4	13.9	12	150	0.837	0.502	0.335
HL45L-E6R3#227TE150	6.3	220	E	85	125	4	13.9	12	150	0.913	0.548	0.365
HL45L-D6R3#337TE150	6.3	330	D	85	125	4	20.8	14	150	0.837	0.502	0.335
HL45L-E6R3#337TE150	6.3	330	E	85	125	4	20.8	14	150	0.913	0.548	0.365
HL45L-E6R3#477TE150	6.3	470	E	85	125	4	29.6	14	150	0.913	0.548	0.365
HL45L-E6R3#687TE150	6.3	680	E	85	125	4	42.8	14	150	0.913	0.548	0.365
HL45L-A010#106TE1k8	10	10	A	85	125	6.3	1	8	1800	0.190	0.114	0.076
HL45L-A010#156TE1k0	10	15	A	85	125	6.3	1.5	8	1000	0.255	0.153	0.102
HL45L-B010#156TE600	10	15	B	85	125	6.3	1.5	6	600	0.354	0.212	0.141
HL45L-A010#226TE1k2	10	22	A	85	125	6.3	2.2	12	1200	0.233	0.140	0.093
HL45L-B010#226TE400	10	22	B	85	125	6.3	2.2	6	400	0.433	0.260	0.173
HL45L-B010#336TE450	10	33	B	85	125	6.3	3.3	8	450	0.408	0.245	0.163
HL45L-C010#336TE400	10	33	C	85	125	6.3	3.3	6	400	0.474	0.285	0.190
HL45L-D010#336TE300	10	33	D	85	125	6.3	3.3	6	300	0.592	0.355	0.237
HL45L-B010#476TE500	10	47	B	85	125	6.3	4.7	10	500	0.387	0.232	0.155
HL45L-C010#476TE400	10	47	C	85	125	6.3	4.7	8	400	0.474	0.285	0.190
HL45L-D010#476TE300	10	47	D	85	125	6.3	4.7	6	300	0.592	0.355	0.237
HL45L-C010#686TE200	10	68	C	85	125	6.3	6.8	8	200	0.671	0.402	0.268

- # is the replacement character to indicate the capacity tolerance, fill in K represents +10%, M represents +20%;
- Do not use a multimeter;
- Capacity and loss measurement conditions: 100Hz, $U_{-} = 2.2 V$, $U_{+} = 1.0 V$, Frequency=100Hz, Series measurement
- If the ambient temperature is higher than +85 °C, the derating voltage is required. (The leakage current parameter is the reading after 5 minutes of power-on.)
- For special sizes or requirements please contact us.



Product code and parameter specification

Product code	Rated voltage (V)	Nominal capacity (μF)	Shell number	Rated temperature (°C)	Class temperature (°C)	Class voltage (V)	Maximum leakage current (μA) @25°C	Maximum loss (%) @ 25 100Hz	ESR maximum (mΩ) @ 25 100KHz	Maximum allowable ripple current @100KHzRMS(A)		
										25°C	85°C	125°C
HL45L-D010#686TE150	10	68	D	85	125	6.3	6.8	6	150	0.837	0.502	0.335
HL45L-C010#107TE250	10	100	C	85	125	6.3	10.0	10	250	0.600	0.360	0.240
HL45L-D010#107TE200	10	100	D	85	125	6.3	10.0	8	200	0.725	0.435	0.290
HL45L-E010#107TE150	10	100	E	85	125	6.3	10.0	8	150	0.913	0.548	0.365
HL45L-D010#157TE200	10	150	D	85	125	6.3	15.0	10	200	0.725	0.435	0.290
HL45L-E010#157TE150	10	150	E	85	125	6.3	15.0	10	150	0.913	0.548	0.365
HL45L-D010#227TE200	10	220	D	85	125	6.3	22.0	12	200	0.725	0.435	0.290
HL45L-E010#227TE200	10	220	E	85	125	6.3	22.0	12	200	0.791	0.474	0.316
HL45L-V010#227TE200	10	220	V	85	125	6.3	22.0	12	200	0.866	0.520	0.346
HL45L-D010#337TE150	10	330	D	85	125	6.3	33.0	14	150	0.837	0.502	0.335
HL45L-E010#337TE150	10	330	E	85	125	6.3	33.0	14	150	0.913	0.548	0.365
HL45L-V010#337TE150	10	330	V	85	125	6.3	33.0	14	150	1.000	0.600	0.400
HL45L-E010#477TE150	10	470	E	85	125	6.3	47.0	14	150	0.913	0.548	0.365
HL45L-E010#687TE150	10	680	E	85	125	6.3	68.0	14	150	0.913	0.548	0.365
HL45L-A016#685TE2k0	16	6.8	A	85	125	10	1.1	6	2000	0.180	0.108	0.072
HL45L-B016#685TE1k2	16	6.8	B	85	125	10	1.1	6	1200	0.250	0.150	0.100
HL45L-A016#106TE1k7	16	10	A	85	125	10	1.6	8	1700	0.196	0.117	0.078
HL45L-B016#106TE1k2	16	10	B	85	125	10	1.6	6	1200	0.250	0.150	0.100
HL45L-B016#156TE800	16	15	B	85	125	10	2.4	6	800	0.306	0.184	0.122
HL45L-C016#156TE600	16	15	C	85	125	10	2.4	6	600	0.387	0.232	0.155
HL45L-B016#226TE700	16	22	B	85	125	10	3.5	8	700	0.327	0.196	0.131
HL45L-C016#226TE500	16	22	C	85	125	10	3.5	6	500	0.424	0.255	0.170
HL45L-D016#226TE500	16	22	D	85	125	10	3.5	6	500	0.458	0.275	0.183
HL45L-C016#336TE500	16	33	C	85	125	10	5.3	6	500	0.424	0.255	0.170
HL45L-D016#336TE300	16	33	D	85	125	10	5.3	6	300	0.592	0.355	0.237
HL45L-C016#476TE300	16	47	C	85	125	10	7.5	8	300	0.548	0.329	0.219
HL45L-D016#476TE300	16	47	D	85	125	10	7.5	6	300	0.592	0.355	0.237
HL45L-E016#476TE200	16	47	E	85	125	10	7.5	6	200	0.791	0.474	0.316
HL45L-C016#686TE1k0	16	68	C	85	125	10	10.9	8	1000	0.300	0.180	0.120
HL45L-D016#686TE200	16	68	D	85	125	10	10.9	8	200	0.725	0.435	0.290
HL45L-E016#686TE200	16	68	E	85	125	10	10.9	6	200	0.791	0.474	0.316
HL45L-C016#107TE800	16	100	C	85	125	10	16.0	12	800	0.335	0.201	0.134
HL45L-D016#107TE200	16	100	D	85	125	10	16.0	8	200	0.725	0.435	0.290
HL45L-E016#107TE200	16	100	E	85	125	10	16.0	8	200	0.791	0.474	0.316
HL45L-D016#157TE500	16	150	D	85	125	10	24.0	12	500	0.458	0.275	0.183
HL45L-E016#157TE200	16	150	E	85	125	10	24.0	10	200	0.791	0.474	0.316
HL45L-E016#227TE200	16	220	E	85	125	10	35.2	12	200	0.791	0.474	0.316
HL45L-V016#227TE200	16	220	V	85	125	10	35.2	12	200	0.866	0.520	0.346
HL45L-E016#337TE180	16	330	E	85	125	10	52.8	12	180	0.833	0.500	0.333
HL45L-V016#337TE180	16	330	V	85	125	10	52.8	12	180	0.913	0.548	0.365
HL45L-E016#477TE450	16	470	E	85	125	10	75.2	16	450	0.527	0.316	0.211
HL45L-A020#335TE4k0	20	3.3	A	85	125	15	0.7	6	4000	0.127	0.076	0.051
HL45L-B020#335TE3k0	20	3.3	B	85	125	15	0.7	6	3000	0.158	0.095	0.063
HL45L-A020#475TE2k5	20	4.7	A	85	125	15	0.9	6	2500	0.161	0.097	0.064
HL45L-B020#475TE1k5	20	4.7	B	85	125	15	0.9	6	1500	0.224	0.134	0.089
HL45L-C020#475TE1k0	20	4.7	C	85	125	15	0.9	6	1000	0.300	0.180	0.120
HL45L-B020#685TE1k0	20	6.8	B	85	125	15	1.4	6	1000	0.274	0.164	0.110
HL45L-C020#685TE800	20	6.8	C	85	125	15	1.4	6	800	0.335	0.201	0.134
HL45L-B020#106TE1k2	20	10	B	85	125	15	2.0	6	1200	0.250	0.150	0.100
HL45L-C020#106TE600	20	10	C	85	125	15	2.0	6	600	0.387	0.232	0.155
HL45L-D020#106TE500	20	10	D	85	125	15	2.0	6	500	0.458	0.275	0.183
HL45L-B020#156TE1k5	20	15	B	85	125	15	3.0	6	1500	0.224	0.134	0.089
HL45L-C020#156TE800	20	15	C	85	125	15	3.0	6	800	0.335	0.201	0.134
HL45L-D020#156TE600	20	15	D	85	125	15	3.0	6	600	0.418	0.251	0.167

- # is the replacement character to indicate the capacity tolerance, fill in K represents +10%, M represents +20%;
- Do not use a multimeter;
- Capacity and loss measurement conditions: 100Hz, $U_{-} = 2.2 \cdot U_{-1}$, $U_{-} \sim 1.0 \cdot U_{-0.5}$ V, Frequency=100Hz, Series measurement
- If the ambient temperature is higher than +85 °C, the derating voltage is required. (The leakage current parameter is the reading after 5 minutes of power-on.)
- For special sizes or requirements please contact us.



Product code and parameter specification

Product code	Rated voltage (V)	Nominal capacity (μF)	Shell number	Rated temperature (°C)	Class temperature (°C)	Class voltage (V)	Maximum leakage current (μA) @25°C	Maximum loss (%) @ 25 100Hz	ESR maximum (mΩ) @ 25 100KHz	Maximum allowable ripple current @100KHzIRMS(A)		
										25°C	85°C	125°C
HL45L-C020#226TE600	20	22	C	85	125	15	4.4	6	600	0.387	0.232	0.155
HL45L-D020#226TE400	20	22	D	85	125	15	4.4	6	400	0.512	0.307	0.205
HL45L-C020#336TE600	20	33	C	85	125	15	6.6	6	600	0.387	0.232	0.155
HL45L-D020#336TE400	20	33	D	85	125	15	6.6	6	400	0.512	0.307	0.205
HL45L-C020#476TE300	20	47	C	85	125	15	9.4	8	300	0.548	0.329	0.219
HL45L-D020#476TE250	20	47	D	85	125	15	9.4	8	250	0.648	0.389	0.259
HL45L-E020#476TE250	20	47	E	85	125	15	9.4	6	250	0.707	0.424	0.283
HL45L-D020#686TE250	20	68	D	85	125	15	13.6	8	250	0.648	0.389	0.259
HL45L-E020#686TE250	20	68	E	85	125	15	13.6	6	250	0.707	0.424	0.283
HL45L-D020#107TE300	20	100	D	85	125	15	20.0	10	300	0.592	0.355	0.237
HL45L-E020#107TE250	20	100	E	85	125	15	20.0	10	250	0.707	0.424	0.283
HL45L-D020#157TE450	20	150	D	85	125	15	30.0	10	450	0.483	0.290	0.193
HL45L-E020#157TE180	20	150	E	85	125	15	30.0	10	180	0.833	0.500	0.333
HL45L-E020#227TE450	20	220	E	85	125	15	44.0	12	450	0.527	0.316	0.211
HL45L-V020#227TE250	20	220	V	85	125	15	44.0	12	250	0.775	0.465	0.310
HL45L-E020#337TE450	20	330	E	85	125	15	66.0	12	450	0.527	0.316	0.211
HL45L-V020#337TE450	20	330	V	85	125	15	66.0	12	450	0.577	0.346	0.231
HL45L-A025#155TE4k5	25	1.5	A	85	125	17	0.5	6	4500	0.120	0.072	0.048
HL45L-B025#155TE3k0	25	1.5	B	85	125	17	0.5	6	3000	0.158	0.095	0.063
HL45L-A025#225TE3k0	25	2.2	A	85	125	17	0.6	6	3000	0.147	0.088	0.059
HL45L-B025#225TE2k5	25	2.2	B	85	125	17	0.6	6	2500	0.173	0.104	0.069
HL45L-B025#335TE2k0	25	3.3	B	85	125	17	0.8	6	2000	0.194	0.116	0.077
HL45L-C025#335TE1k2	25	3.3	C	85	125	17	0.8	6	1200	0.274	0.164	0.110
HL45L-B025#475TE1k0	25	4.7	B	85	125	17	1.2	6	1000	0.274	0.164	0.110
HL45L-C025#475TE1k0	25	4.7	C	85	125	17	1.2	6	1000	0.300	0.180	0.120
HL45L-B025#685TE2k0	25	6.8	B	85	125	17	1.7	6	2000	0.194	0.116	0.077
HL45L-C025#685TE1k0	25	6.8	C	85	125	17	1.7	6	1000	0.300	0.180	0.120
HL45L-D025#685TE700	25	6.8	D	85	125	17	1.7	6	700	0.387	0.232	0.155
HL45L-B025#106TE1k5	25	10	B	85	125	17	2.5	8	1500	0.224	0.134	0.089
HL45L-C025#106TE900	25	10	C	85	125	17	2.5	6	900	0.316	0.190	0.126
HL45L-D025#106TE450	25	10	D	85	125	17	2.5	6	450	0.483	0.290	0.193
HL45L-C025#156TE500	25	15	C	85	125	17	3.8	6	500	0.424	0.255	0.170
HL45L-D025#156TE400	25	15	D	85	125	17	3.8	6	400	0.512	0.307	0.205
HL45L-C025#226TE800	25	22	C	85	125	17	5.5	6	800	0.335	0.201	0.134
HL45L-D025#226TE400	25	22	D	85	125	17	5.5	6	400	0.512	0.307	0.205
HL45L-D025#336TE300	25	33	D	85	125	17	8.3	8	300	0.592	0.355	0.237
HL45L-E025#336TE250	25	33	E	85	125	17	8.3	6	250	0.707	0.424	0.283
HL45L-D025#476TE350	25	47	D	85	125	17	11.8	8	350	0.548	0.329	0.219
HL45L-E025#476TE300	25	47	E	85	125	17	11.8	6	300	0.645	0.387	0.258
HL45L-E025#686TE250	25	68	E	85	125	17	17.0	8	250	0.707	0.424	0.283
HL45L-V025#686TE250	25	68	V	85	125	17	17.0	8	250	0.775	0.465	0.310
HL45L-E025#107TE200	25	100	E	85	125	17	25.0	10	200	0.791	0.474	0.316
HL45L-V025#107TE200	25	100	V	85	125	17	25.0	10	200	0.866	0.520	0.346
HL45L-E025#157TE600	25	150	E	85	125	17	37.5	10	600	0.456	0.274	0.183
HL45L-A035#474TE4k0	35	0.47	A	85	125	23	0.5	6	4000	0.127	0.076	0.051
HL45L-A035#684TE6k0	35	0.68	A	85	125	23	0.5	6	6000	0.104	0.062	0.042
HL45L-A035#105TE6k0	35	1	A	85	125	23	0.5	6	6000	0.104	0.062	0.042
HL45L-B035#105TE2k5	35	1	B	85	125	23	0.5	4	2500	0.173	0.104	0.069
HL45L-B035#155TE3k0	35	1.5	B	85	125	23	0.5	6	3000	0.158	0.095	0.063
HL45L-C035#155TE2k5	35	1.5	C	85	125	23	0.5	6	2500	0.190	0.114	0.076
HL45L-B035#225TE2k5	35	2.2	B	85	125	23	0.8	6	2500	0.173	0.104	0.069
HL45L-C035#225TE2k0	35	2.2	C	85	125	23	0.8	6	2000	0.212	0.127	0.085
HL45L-B035#335TE2k5	35	3.3	B	85	125	23	1.2	6	2500	0.173	0.104	0.069
HL45L-C035#335TE1k2	35	3.3	C	85	125	23	1.2	6	1200	0.274	0.164	0.110

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- Capacity and loss measurement conditions: 100Hz, $U_{-} = 2.2 \times V$, $U_{\sim} = 1.0 \times V$, Frequency=100Hz, Series measurement
- If the ambient temperature is higher than +85 °C, the derating voltage is required. (The leakage current parameter is the reading after 5 minutes of power-on.)
- For special sizes or requirements please contact us.



Product code and parameter specification

Product code	Rated voltage (V)	Nominal capacity (μF)	Shell number	Rated temperature (°C)	Class temperature (°C)	Class voltage (V)	Maximum leakage current (μA) @25°C	Maximum loss (%) @ 25 100Hz	ESR maximum (mΩ) @ 25 100KHz	Maximum allowable ripple current @100KHzIRMS(A)		
										25°C	85°C	125°C
HL45L-B035#475TE2K0	35	4.7	B	85	125	23	1.6	8	2000	0.194	0.116	0.077
HL45L-C035#475TE800	35	4.7	C	85	125	23	1.6	6	800	0.335	0.201	0.134
HL45L-D035#475TE700	35	4.7	D	85	125	23	1.6	6	700	0.387	0.232	0.155
HL45L-C035#685TE700	35	6.8	C	85	125	23	2.4	6	700	0.359	0.215	0.143
HL45L-D035#685TE600	35	6.8	D	85	125	23	2.4	6	600	0.418	0.251	0.167
HL45L-C035#106TE700	35	10	C	85	125	23	3.5	6	700	0.359	0.215	0.143
HL45L-D035#106TE400	35	10	D	85	125	23	3.5	6	400	0.512	0.307	0.205
HL45L-D035#156TE350	35	15	D	85	125	23	5.3	6	350	0.548	0.329	0.219
HL45L-E035#156TE300	35	15	E	85	125	23	5.3	6	300	0.645	0.387	0.258
HL45L-D035#226TE400	35	22	D	85	125	23	7.7	6	400	0.512	0.307	0.205
HL45L-E035#226TE300	35	22	E	85	125	23	7.7	6	300	0.645	0.387	0.258
HL45L-D035#336TE500	35	33	D	85	125	23	11.6	8	500	0.458	0.275	0.183
HL45L-E035#336TE300	35	33	E	85	125	23	11.6	6	300	0.645	0.387	0.258
HL45L-D035#476TE400	35	47	D	85	125	23	16.5	8	400	0.512	0.307	0.205
HL45L-E035#476TE400	35	47	E	85	125	23	16.5	6	400	0.559	0.335	0.224
HL45L-E035#686TE800	35	68	E	85	125	23	23.8	8	800	0.395	0.237	0.158
HL45L-A050#474TE6K0	50	0.47	A	85	125	33	0.5	6	6000	0.104	0.062	0.042
HL45L-B050#684TE3K0	50	0.68	B	85	125	33	0.5	6	3000	0.158	0.095	0.063
HL45L-B050#105TE2K5	50	1	B	85	125	33	0.5	6	2500	0.173	0.104	0.069
HL45L-C050#105TE1K8	50	1	C	85	125	33	0.5	4	1800	0.224	0.134	0.089
HL45L-C050#155TE1K8	50	1.5	C	85	125	33	0.8	6	1800	0.224	0.134	0.089
HL45L-D050#155TE1K0	50	1.5	D	85	125	33	0.8	6	1000	0.324	0.194	0.130
HL45L-C050#225TE1K5	50	2.2	C	85	125	33	1.1	6	1500	0.245	0.147	0.098
HL45L-D050#225TE700	50	2.2	D	85	125	33	1.1	6	700	0.387	0.232	0.155
HL45L-C050#335TE700	50	3.3	C	85	125	33	1.7	6	700	0.359	0.215	0.143
HL45L-D050#335TE700	50	3.3	D	85	125	33	1.7	6	700	0.387	0.232	0.155
HL45L-C050#475TE700	50	4.7	C	85	125	33	2.4	6	700	0.359	0.215	0.143
HL45L-D050#475TE600	50	4.7	D	85	125	33	2.4	6	600	0.418	0.251	0.167
HL45L-D050#685TE600	50	6.8	D	85	125	33	3.4	6	600	0.418	0.251	0.167
HL45L-E050#685TE500	50	6.8	E	85	125	33	3.4	6	500	0.500	0.300	0.200
HL45L-D050#106TE400	50	10	D	85	125	33	5.0	6	400	0.512	0.307	0.205
HL45L-E050#106TE400	50	10	E	85	125	33	5.0	6	400	0.559	0.335	0.224
HL45L-E050#156TE400	50	15	E	85	125	33	7.5	6	400	0.559	0.335	0.224
HL45L-E050#226TE400	50	22	E	85	125	33	11.0	8	400	0.559	0.335	0.224

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