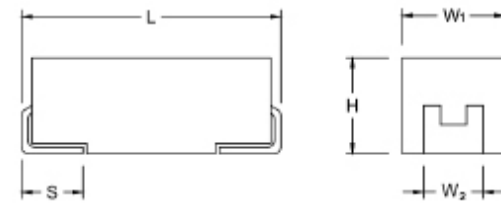
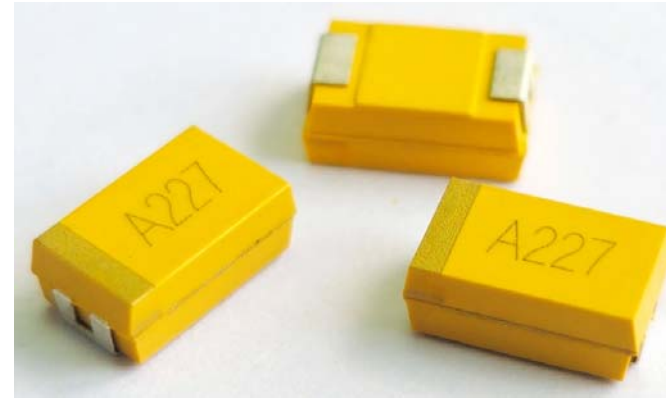


CA45L SERIES

LOW ESR

Features

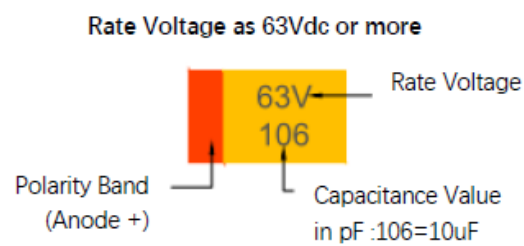
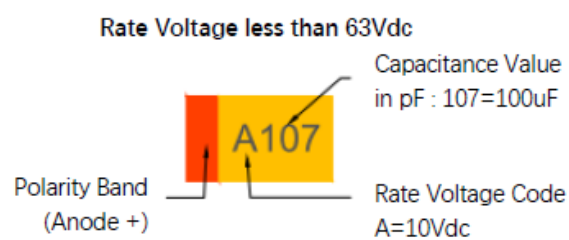
- Epoxy molded encapsulation, Chip, Easy for integration, Polarized;
- LOW ESR , Volumetrically efficient , Stable in electrical & storage performances , Long life-span, High reliability;
- Typical applications include decoupling and filtering in industrial and automotive end applications , such as DC/DC converters , portable electronics , telecommunications and control units
- Operative Standard: QJ/PWV305-2008;



Dimensions(mm)

Shell Number	EIA BS	EIA Metric Code	L	W1	H	S	W2
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
W	2924	7360-38	7.50±0.40	6.20±0.40	3.80±0.40	1.40±0.20	3.00±0.20

Marking



How to order

XRCA45L	107	K	060	B	T	-	E700
Model	Capacity Code	Capacity Tolerance	DC rated voltage	Case Size	Package	Separator	ESR
		K=±10% M=±20%	040= 4Vdc 060 = 6.3Vdc 100 = 10Vdc 160 = 16Vdc 250 =25Vdc		T=Reel		The last three digits are ESR values, measured in mΩ (700=700 mΩ)

Environmental Declaration

RoHS declaration (6/6) complies with the requirements of Directive 2002/95/EC, which stipulates the use of 100% Sn solder, gold plated or non-magnetic 100% Sn solder



Technical Characteristics

Technical Parameter	All technical parameters are measured at 1 atmospheric pressure and +25 °C							
Capacity range	0.47μF ~ 1000μF							
Capacity tolerance	±10%; ±20%;							
Rated Voltage (VR) ≤+85°C:	4	6.3	10	16	20	25	35	50
Cat. Voltage (VC) ≤+125°C:	2.7	4	6.3	10	15	17	23	33
Surge Voltage (VS) ≤+85°C:	5.2	8	13	20	26	32	46	65
Surge Voltage (VS) ≤+125°C:	3.4	5	8	13	16	20	28	40
Temperature range	-55°C to +125°C							
Pin coating	Tin coating (standard), gold coating or tin lead coating require additional requirements							

Application

Automotive Electronics	DC/DC Converter	Filter Circuits	Telecom Infrastructure

Product Specification Shell Number Comparison Table (Shell Number and ESR)

Rated Voltage(V)	20	25	35	50	63
Nominal Capacity(μF)	Case Size & ESR				
0.47			A(4000,A(8000)	A(3000,6000)	
0.68			A(6000,A(7000)	B(3000,6000)	
1			A(6000,7000),B(2500,3000)	B(2500,4000),C(1800,4000)	C(2000)
1.5		A(4500,7500),B(3000,5000)	B(3000,4000),C(2500,3000)	C(1800,3000),D(1000,2500)	D(2500)
2.2		A(3000,8000),B(2500,5000)	B(2500,3000),C(2000,2500)	C(1500,2000),D(700,1000)	D(1500)
3.3	A(4000,5000),B(3000,4000)	B(2000,3000),C(1200,2000)	B(2500,3000),C(1200,2000)	C(700,1500),D(700,1500)	D(1200)
4.7	A(2500,5000),B(1500,3000), C(1000,2500)	B(1000,1200),C(1000,2000)	B(2000,2500),C(800,1000), D(700,1000)	C(700,1000),D(600,1000)	E(800)
6.8	B(1000,1800),C(800,1200)	B(2000,2500),C(1000,1500), D(700,1000)	C(700,1200),D(600,1000)	D(400,600),E(400,800)	E(600)
10	B(1200,1800),C(600,1000), D(500,1000)	B(1500,2000),C(900,1200) D(450,800)	C(700,1000),D(400,800)	E(400,500)	E(450)
15	B(1500,1800),C(800,1000), D(600,800)	C(500,1000),D(400,600)	D(350,600),E(300,600)	E(400,500)	E(300)V(300)
22	C(600,900),D(400,600)	C(800,1000),D(400,600)	D(400,500),E(300,400)		V(300)
33	C(600,900),D(400,600)	D(300,500),E(250,500)	D(500,700),E(300,600)		
47	C(300,400),D(250,500) , E(250,500)	D(350,500),E(300,600)	D(400,900),E(400,600)		
68	D(250,300),E(250,500)	E(250,500),V(250,600)	E(800)		
100	D(300,400),E(250,300)	E(200,250),V(200,250)			
150	D(450,600),E(180,250)	E(600),V(300)			
220	E(450,600),V(250,400)				
330	E(450,600),V(450,600)				

Rated Voltage(V)	4	6.3	10	16
Nominal Capacity(μF)	Shell Number & ESR			
6.8				A(2000),B(1200)
10			A(1800)	A(1700),B(1200)
15			A(1200),B(400)	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)			

RATING & PART NUMBER REFERENCE

Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L476K040AT-E1K5	4	47	A	85	125	2.7	1.9	11	1500	0.208	0.125	0.083
XRCA45L476K040AT-E2K0	4	47	A	85	125	2.7	1.9	11	2000	0.180	0.108	0.072
XRCA45L476K040BT-E900	4	47	B	85	125	2.7	1.9	8	900	0.289	0.173	0.115
XRCA45L476K040BT-E1K5	4	47	B	85	125	2.7	1.9	8	1500	0.224	0.134	0.089
XRCA45L686K040BT-E1K0	4	68	B	85	125	2.7	2.7	8	1000	0.274	0.164	0.110
XRCA45L686K040BT-E1K5	4	68	B	85	125	2.7	2.7	8	1500	0.224	0.134	0.089
XRCA45L686K040CT-E600	4	68	C	85	125	2.7	2.7	6	600	0.387	0.232	0.155
XRCA45L686K040CT-E1K0	4	68	C	85	125	2.7	2.7	6	1000	0.300	0.180	0.120
XRCA45L107K040BT-E450	4	100	B	85	125	2.7	4.0	10	450	0.408	0.245	0.163
XRCA45L107K040BT-E800	4	100	B	85	125	2.7	4.0	10	800	0.306	0.184	0.122
XRCA45L107K040CT-E500	4	100	C	85	125	2.7	4.0	10	500	0.424	0.255	0.170
XRCA45L107K040CT-E1K0	4	100	C	85	125	2.7	4.0	10	1000	0.300	0.180	0.120
XRCA45L157K040CT-E500	4	150	C	85	125	2.7	6.0	10	500	0.424	0.255	0.170
XRCA45L157K040CT-E900	4	150	C	85	125	2.7	6.0	10	900	0.316	0.190	0.126
XRCA45L157K040DT-E350	4	150	D	85	125	2.7	6.0	8	350	0.548	0.329	0.219
XRCA45L157K040DT-E700	4	150	D	85	125	2.7	6.0	8	700	0.387	0.232	0.155
XRCA45L157K040ET-E200	4	150	E	85	125	2.7	6.0	8	200	0.791	0.474	0.316
XRCA45L157K040ET-E600	4	150	E	85	125	2.7	6.0	8	600	0.456	0.274	0.183
XRCA45L227K040CT-E500	4	220	C	85	125	2.7	8.8	12	500	0.424	0.255	0.170
XRCA45L227K040CT-E900	4	220	C	85	125	2.7	8.8	12	900	0.316	0.190	0.126
XRCA45L227K040DT-E300	4	220	D	85	125	2.7	8.8	10	300	0.592	0.355	0.237
XRCA45L227K040DT-E600	4	220	D	85	125	2.7	8.8	10	600	0.418	0.251	0.167
XRCA45L227K040ET-E100	4	220	E	85	125	2.7	8.8	10	100	1.118	0.671	0.447
XRCA45L227K040ET-E500	4	220	E	85	125	2.7	8.8	10	500	0.500	0.300	0.200
XRCA45L337K040DT-E400	4	330	D	85	125	2.7	13.2	14	400	0.512	0.307	0.205
XRCA45L337K040DT-E600	4	330	D	85	125	2.7	13.2	14	600	0.418	0.251	0.167
XRCA45L337K040ET-E200	4	330	E	85	125	2.7	13.2	12	200	0.791	0.474	0.316
XRCA45L337K040ET-E600	4	330	E	85	125	2.7	13.2	12	600	0.456	0.274	0.183
XRCA45L337K040VT-E200	4	330	V	85	125	2.7	13.2	12	200	0.866	0.520	0.346
XRCA45L337K040VT-E600	4	330	V	85	125	2.7	13.2	12	600	0.500	0.300	0.200
XRCA45L477K040DT-E200	4	470	D	85	125	2.7	18.8	14	200	0.725	0.435	0.290
XRCA45L477K040DT-E350	4	470	D	85	125	2.7	18.8	14	350	0.548	0.329	0.219
XRCA45L477K040ET-E150	4	470	E	85	125	2.7	18.8	12	150	0.913	0.548	0.365
XRCA45L477K040ET-E350	4	470	E	85	125	2.7	18.8	12	350	0.598	0.359	0.239

- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
4. If the ambient temperature is higher than +85 °C, the rated voltage needs to be reduced for use (The leakage current parameter is the reading after 5 minutes of power on)
5. For special sizes or requirements, please contact us.

RATING & PART NUMBER REFERENCE

Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L477K040VT-E150	4	470	V	85	125	2.7	18.8	12	150	1.000	0.600	0.400
XRCA45L477K040VT-E350	4	470	V	85	125	2.7	18.8	12	350	0.655	0.393	0.262
XRCA45L687K040ET-E150	4	680	E	85	125	2.7	27.2	14	150	0.913	0.548	0.365
XRCA45L687K040ET-E200	4	680	E	85	125	2.7	27.2	14	200	0.791	0.474	0.316
XRCA45L108K040ET-E150	4	1000	E	85	125	2.7	40.0	15	150	0.913	0.548	0.365
XRCA45L108K040ET-E200	4	1000	E	85	125	2.7	40.0	15	200	0.791	0.474	0.316
XRCA45L336K060AT-E1K5	6.3	33	A	85	125	4	2.1	8	1500	0.208	0.125	0.083
XRCA45L336K060AT-E2K0	6.3	33	A	85	125	4	2.1	8	2000	0.180	0.108	0.072
XRCA45L336K060BT-E600	6.3	33	B	85	125	4	2.1	8	600	0.354	0.212	0.141
XRCA45L476K060BT-E600	6.3	47	B	85	125	4	3.0	8	600	0.354	0.212	0.141
XRCA45L476K060BT-E800	6.3	47	B	85	125	4	3.0	8	800	0.306	0.184	0.122
XRCA45L476K060CT-E300	6.3	47	C	85	125	4	3.0	6	300	0.548	0.329	0.219
XRCA45L476K060CT-E500	6.3	47	C	85	125	4	3.0	6	500	0.424	0.255	0.170
XRCA45L686K060BT-E500	6.3	68	B	85	125	4	4.3	10	500	0.387	0.232	0.155
XRCA45L686K060BT-E700	6.3	68	B	85	125	4	4.3	10	700	0.327	0.196	0.131
XRCA45L686K060CT-E500	6.3	68	C	85	125	4	4.3	8	500	0.424	0.255	0.170
XRCA45L686K060CT-E700	6.3	68	C	85	125	4	4.3	8	700	0.359	0.215	0.143
XRCA45L686K060DT-E250	6.3	68	D	85	125	4	4.3	6	250	0.648	0.389	0.259
XRCA45L686K060DT-E500	6.3	68	D	85	125	4	4.3	6	500	0.458	0.275	0.183
XRCA45L107K060BT-E400	6.3	100	B	85	125	4	6.3	14	400	0.433	0.260	0.173
XRCA45L107K060BT-E700	6.3	100	B	85	125	4	6.3	14	700	0.327	0.196	0.131
XRCA45L107K060CT-E300	6.3	100	C	85	125	4	6.3	8	300	0.548	0.329	0.219
XRCA45L107K060CT-E500	6.3	100	C	85	125	4	6.3	8	500	0.424	0.255	0.170
XRCA45L107K060DT-E300	6.3	100	D	85	125	4	6.3	8	300	0.592	0.355	0.237
XRCA45L107K060DT-E500	6.3	100	D	85	125	4	6.3	8	500	0.458	0.275	0.183
XRCA45L157K060CT-E300	6.3	150	C	85	125	4	9.5	12	300	0.548	0.329	0.219
XRCA45L157K060CT-E500	6.3	150	C	85	125	4	9.5	12	500	0.424	0.255	0.170
XRCA45L157K060DT-E300	6.3	150	D	85	125	4	9.5	10	300	0.592	0.355	0.237
XRCA45L157K060DT-E500	6.3	150	D	85	125	4	9.5	10	500	0.458	0.275	0.183
XRCA45L157K060ET-E150	6.3	150	E	85	125	4	9.5	10	150	0.913	0.548	0.365
XRCA45L157K060ET-E300	6.3	150	E	85	125	4	9.5	10	300	0.645	0.387	0.258
XRCA45L227K060CT-E200	6.3	220	C	85	125	4	13.9	14	200	0.671	0.402	0.268
XRCA45L227K060CT-E500	6.3	220	C	85	125	4	13.9	14	500	0.424	0.255	0.170
XRCA45L227K060DT-E150	6.3	220	D	85	125	4	13.9	12	150	0.837	0.502	0.335

- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
4. If the ambient temperature is higher than +85 °C, the rated voltage needs to be reduced for use (The leakage current parameter is the reading after 5 minutes of power on)
5. For special sizes or requirements, please contact us.

RATING & PART NUMBER REFERENCE

Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L227K060DT-E300	6.3	220	D	85	125	4	13.9	12	300	0.592	0.355	0.237
XRCA45L227K060ET-E150	6.3	220	E	85	125	4	13.9	12	150	0.913	0.548	0.365
XRCA45L227K060ET-E300	6.3	220	E	85	125	4	13.9	12	300	0.645	0.387	0.258
XRCA45L337K060DT-E150	6.3	330	D	85	125	4	20.8	14	150	0.837	0.502	0.335
XRCA45L337K060DT-E300	6.3	330	D	85	125	4	20.8	14	300	0.592	0.355	0.237
XRCA45L337K060ET-E150	6.3	330	E	85	125	4	20.8	14	150	0.913	0.548	0.365
XRCA45L337K060ET-E300	6.3	330	E	85	125	4	20.8	14	300	0.645	0.387	0.258
XRCA45L477K060ET-E150	6.3	470	E	85	125	4	29.6	14	150	0.913	0.548	0.365
XRCA45L477K060ET-E300	6.3	470	E	85	125	4	29.6	14	300	0.645	0.387	0.258
XRCA45L687K060ET-E150	6.3	680	E	85	125	4	42.8	14	150	0.913	0.548	0.365
XRCA45L687K060ET-E300	6.3	680	E	85	125	4	42.8	14	300	0.645	0.387	0.258
XRCA45L156K100AT-E1K0	10	15	A	85	125	6.3	1.5	8	1000	0.255	0.153	0.102
XRCA45L156K100AT-E1K8	10	15	A	85	125	6.3	1.5	8	1800	0.190	0.114	0.076
XRCA45L156K100BT-E600	10	15	B	85	125	6.3	1.5	6	600	0.354	0.212	0.141
XRCA45L156K100BT-E900	10	15	B	85	125	6.3	1.5	6	900	0.289	0.173	0.115
XRCA45L226K100AT-E1K2	10	22	A	85	125	6.3	2.2	12	1200	0.233	0.140	0.093
XRCA45L226K100AT-E1K5	10	22	A	85	125	6.3	2.2	12	1500	0.208	0.125	0.083
XRCA45L226K100BT-E400	10	22	B	85	125	6.3	2.2	6	400	0.433	0.260	0.173
XRCA45L226K100BT-E500	10	22	B	85	125	6.3	2.2	6	500	0.387	0.232	0.155
XRCA45L336K100BT-E450	10	33	B	85	125	6.3	3.3	8	450	0.408	0.245	0.163
XRCA45L336K100BT-E700	10	33	B	85	125	6.3	3.3	8	700	0.327	0.196	0.131
XRCA45L336K100CT-E400	10	33	C	85	125	6.3	3.3	6	400	0.474	0.285	0.190
XRCA45L336K100CT-E600	10	33	C	85	125	6.3	3.3	6	600	0.387	0.232	0.155
XRCA45L336K100DT-E300	10	33	D	85	125	6.3	3.3	6	300	0.592	0.355	0.237
XRCA45L336K100DT-E500	10	33	D	85	125	6.3	3.3	6	500	0.458	0.275	0.183
XRCA45L476K100BT-E500	10	47	B	85	125	6.3	4.7	10	500	0.387	0.232	0.155
XRCA45L476K100BT-E700	10	47	B	85	125	6.3	4.7	10	700	0.327	0.196	0.131
XRCA45L476K100CT-E400	10	47	C	85	125	6.3	4.7	8	400	0.474	0.285	0.190
XRCA45L476K100CT-E600	10	47	C	85	125	6.3	4.7	8	600	0.387	0.232	0.155
XRCA45L476K100DT-E300	10	47	D	85	125	6.3	4.7	6	300	0.592	0.355	0.237
XRCA45L476K100DT-E500	10	47	D	85	125	6.3	4.7	6	500	0.458	0.275	0.183
XRCA45L686K100CT-E200	10	68	C	85	125	6.3	6.8	8	200	0.671	0.402	0.268
XRCA45L686K100CT-E500	10	68	C	85	125	6.3	6.8	8	500	0.424	0.255	0.170
XRCA45L686K100DT-E150	10	68	D	85	125	6.3	6.8	6	150	0.837	0.502	0.335

- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
4. If the ambient temperature is higher than +85 °C, the rated voltage needs to be reduced for use (The leakage current parameter is the reading after 5 minutes of power on)
5. For special sizes or requirements, please contact us.

RATING & PART NUMBER REFERENCE

Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L686K100DT-E400	10	68	D	85	125	6.3	6.8	6	400	0.512	0.307	0.205
XRCA45L107K100CT-E250	10	100	C	85	125	6.3	10.0	10	250	0.600	0.360	0.240
XRCA45L107K100CT-E500	10	100	C	85	125	6.3	10.0	10	500	0.424	0.255	0.170
XRCA45L107K100DT-E200	10	100	D	85	125	6.3	10.0	8	200	0.725	0.435	0.290
XRCA45L107K100DT-E400	10	100	D	85	125	6.3	10.0	8	400	0.512	0.307	0.205
XRCA45L107K100ET-E150	10	100	E	85	125	6.3	10.0	8	150	0.913	0.548	0.365
XRCA45L157K100DT-E200	10	150	D	85	125	6.3	15.0	10	200	0.725	0.435	0.290
XRCA45L157K100DT-E400	10	150	D	85	125	6.3	15.0	10	400	0.512	0.307	0.205
XRCA45L157K100ET-E150	10	150	E	85	125	6.3	15.0	10	150	0.913	0.548	0.365
XRCA45L157K100ET-E300	10	150	E	85	125	6.3	15.0	10	300	0.645	0.387	0.258
XRCA45L227K100DT-E200	10	220	D	85	125	6.3	22.0	12	200	0.725	0.435	0.290
XRCA45L227K100DT-E400	10	220	D	85	125	6.3	22.0	12	400	0.512	0.307	0.205
XRCA45L227K100ET-E200	10	220	E	85	125	6.3	22.0	12	200	0.791	0.474	0.316
XRCA45L227K100ET-E400	10	220	E	85	125	6.3	22.0	12	400	0.559	0.335	0.224
XRCA45L227K100VT-E200	10	220	V	85	125	6.3	22.0	12	200	0.866	0.520	0.346
XRCA45L227K100VT-E400	10	220	V	85	125	6.3	22.0	12	400	0.612	0.367	0.245
XRCA45L337K100DT-E150	10	330	D	85	125	6.3	33.0	14	150	0.837	0.502	0.335
XRCA45L337K100DT-E250	10	330	D	85	125	6.3	33.0	14	250	0.648	0.389	0.259
XRCA45L337K100ET-E150	10	330	E	85	125	6.3	33.0	14	150	0.913	0.548	0.365
XRCA45L337K100ET-E200	10	330	E	85	125	6.3	33.0	14	200	0.791	0.474	0.316
XRCA45L337K100VT-E150	10	330	V	85	125	6.3	33.0	14	150	1.000	0.600	0.400
XRCA45L337K100VT-E200	10	330	V	85	125	6.3	33.0	14	200	0.866	0.520	0.346
XRCA45L477K100ET-E150	10	470	E	85	125	6.3	47.0	14	150	0.913	0.548	0.365
XRCA45L477K100ET-E200	10	470	E	85	125	6.3	47.0	14	200	0.791	0.474	0.316
XRCA45L687K100ET-E150	10	680	E	85	125	6.3	68.0	14	150	0.913	0.548	0.365
XRCA45L687K100ET-E200	10	680	E	85	125	6.3	68.0	14	200	0.791	0.474	0.316
XRCA45L685K160AT-E2K0	16	6.8	A	85	125	10	1.1	6	2000	0.180	0.108	0.072
XRCA45L685K160AT-E2K5	16	6.8	A	85	125	10	1.1	6	2500	0.161	0.097	0.064
XRCA45L685K160BT-E1K2	16	6.8	B	85	125	10	1.1	6	1200	0.250	0.150	0.100
XRCA45L685K160BT-E2K0	16	6.8	B	85	125	10	1.1	6	2000	0.194	0.116	0.077
XRCA45L106K160AT-E1K7	16	10	A	85	125	10	1.6	8	1700	0.196	0.117	0.078
XRCA45L106K160BT-E1K2	16	10	B	85	125	10	1.6	6	1200	0.250	0.150	0.100
XRCA45L106K160BT-E2K0	16	10	B	85	125	10	1.6	6	2000	0.194	0.116	0.077
XRCA45L156K160BT-E800	16	15	B	85	125	10	2.4	6	800	0.306	0.184	0.122

- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
4. If the ambient temperature is higher than +85 °C, the rated voltage needs to be reduced for use (The leakage current parameter is the reading after 5 minutes of power on)
5. For special sizes or requirements, please contact us.

RATING & PART NUMBER REFERENCE

Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L156K160BT-E1K0	16	15	B	85	125	10	2.4	6	1000	0.274	0.164	0.110
XRCA45L156K160CT-E600	16	15	C	85	125	10	2.4	6	600	0.387	0.232	0.155
XRCA45L226K160BT-E700	16	22	B	85	125	10	3.5	8	700	0.327	0.196	0.131
XRCA45L226K160BT-E1K0	16	22	B	85	125	10	3.5	8	1000	0.274	0.164	0.110
XRCA45L226K160CT-E500	16	22	C	85	125	10	3.5	6	500	0.424	0.255	0.170
XRCA45L226K160CT-E700	16	22	C	85	125	10	3.5	6	700	0.359	0.215	0.143
XRCA45L226K160DT-E500	16	22	D	85	125	10	3.5	6	500	0.458	0.275	0.183
XRCA45L336K160CT-E500	16	33	C	85	125	10	5.3	6	500	0.424	0.255	0.170
XRCA45L336K160CT-E700	16	33	C	85	125	10	5.3	6	700	0.359	0.215	0.143
XRCA45L336K160DT-E300	16	33	D	85	125	10	5.3	6	300	0.592	0.355	0.237
XRCA45L336K160DT-E500	16	33	D	85	125	10	5.3	6	500	0.458	0.275	0.183
XRCA45L476K160CT-E300	16	47	C	85	125	10	7.5	8	300	0.548	0.329	0.219
XRCA45L476K160CT-E500	16	47	C	85	125	10	7.5	8	500	0.424	0.255	0.170
XRCA45L476K160DT-E300	16	47	D	85	125	10	7.5	6	300	0.592	0.355	0.237
XRCA45L476K160DT-E500	16	47	D	85	125	10	7.5	6	500	0.458	0.275	0.183
XRCA45L476K160ET-E200	16	47	E	85	125	10	7.5	6	200	0.791	0.474	0.316
XRCA45L476K160ET-E600	16	47	E	85	125	10	7.5	6	600	0.456	0.274	0.183
XRCA45L686K160CT-E1K0	16	68	C	85	125	10	10.9	8	1000	0.300	0.180	0.120
XRCA45L686K160DT-E200	16	68	D	85	125	10	10.9	8	200	0.725	0.435	0.290
XRCA45L686K160DT-E450	16	68	D	85	125	10	10.9	8	450	0.483	0.290	0.193
XRCA45L686K160ET-E200	16	68	E	85	125	10	10.9	6	200	0.791	0.474	0.316
XRCA45L686K160ET-E600	16	68	E	85	125	10	10.9	6	600	0.456	0.274	0.183
XRCA45L107K160CT-E800	16	100	C	85	125	10	16.0	12	800	0.335	0.201	0.134
XRCA45L107K160DT-E200	16	100	D	85	125	10	16.0	8	200	0.725	0.435	0.290
XRCA45L107K160DT-E500	16	100	D	85	125	10	16.0	8	500	0.458	0.275	0.183
XRCA45L107K160ET-E200	16	100	E	85	125	10	16.0	8	200	0.791	0.474	0.316
XRCA45L107K160ET-E600	16	100	E	85	125	10	16.0	8	600	0.456	0.274	0.183
XRCA45L157K160DT-E500	16	150	D	85	125	10	24.0	12	500	0.458	0.275	0.183
XRCA45L157K160DT-E600	16	150	D	85	125	10	24.0	12	600	0.418	0.251	0.167
XRCA45L157K160ET-E200	16	150	E	85	125	10	24.0	10	200	0.791	0.474	0.316
XRCA45L157K160ET-E250	16	150	E	85	125	10	24.0	10	250	0.707	0.424	0.283
XRCA45L227K160ET-E200	16	220	E	85	125	10	35.2	12	200	0.791	0.474	0.316
XRCA45L227K160ET-E400	16	220	E	85	125	10	35.2	12	400	0.559	0.335	0.224
XRCA45L227K160VT-E200	16	220	V	85	125	10	35.2	12	200	0.866	0.520	0.346

- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
4. If the ambient temperature is higher than +85 °C, the rated voltage needs to be reduced for use (The leakage current parameter is the reading after 5 minutes of power on)
5. For special sizes or requirements, please contact us.

RATING & PART NUMBER REFERENCE

Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L227K160VT-E400	16	220	V	85	125	10	35.2	12	400	0.612	0.367	0.245
XRCA45L337K160ET-E180	16	330	E	85	125	10	52.8	12	180	0.833	0.500	0.333
XRCA45L337K160ET-E500	16	330	E	85	125	10	52.8	12	500	0.500	0.300	0.200
XRCA45L337K160VT-E180	16	330	V	85	125	10	52.8	12	180	0.913	0.548	0.365
XRCA45L337K160VT-E500	16	330	V	85	125	10	52.8	12	500	0.548	0.329	0.219
XRCA45L477K160ET-E450	16	470	E	85	125	10	75.2	16	450	0.527	0.316	0.211
XRCA45L477K160ET-E600	16	470	E	85	125	10	75.2	16	600	0.456	0.274	0.183
XRCA45L335K200AT-E4K0	20	3.3	A	85	125	15	0.7	6	4000	0.127	0.076	0.051
XRCA45L335K200AT-E5K0	20	3.3	A	85	125	15	0.7	6	5000	0.114	0.068	0.046
XRCA45L335K200BT-E3K0	20	3.3	B	85	125	15	0.7	6	3000	0.158	0.095	0.063
XRCA45L335K200BT-E4K0	20	3.3	B	85	125	15	0.7	6	4000	0.137	0.082	0.055
XRCA45L475K200AT-E2K5	20	4.7	A	85	125	15	0.9	6	2500	0.161	0.097	0.064
XRCA45L475K200AT-E5K0	20	4.7	A	85	125	15	0.9	6	5000	0.114	0.068	0.046
XRCA45L475K200BT-E1K5	20	4.7	B	85	125	15	0.9	6	1500	0.224	0.134	0.089
XRCA45L475K200BT-E3K0	20	4.7	B	85	125	15	0.9	6	3000	0.158	0.095	0.063
XRCA45L475K200CT-E1K0	20	4.7	C	85	125	15	0.9	6	1000	0.300	0.180	0.120
XRCA45L475K200CT-E2K5	20	4.7	C	85	125	15	0.9	6	2500	0.190	0.114	0.076
XRCA45L685K200BT-E1K0	20	6.8	B	85	125	15	1.4	6	1000	0.274	0.164	0.110
XRCA45L685K200BT-E1K8	20	6.8	B	85	125	15	1.4	6	1800	0.204	0.122	0.082
XRCA45L685K200CT-E800	20	6.8	C	85	125	15	1.4	6	800	0.335	0.201	0.134
XRCA45L686K200CT-E1K2	20	6.8	C	85	125	15	1.4	6	1200	0.274	0.164	0.110
XRCA45L106K200BT-E1K2	20	10	B	85	125	15	2.0	6	1200	0.250	0.150	0.100
XRCA45L106K200BT-E1K8	20	10	B	85	125	15	2.0	6	1800	0.204	0.122	0.082
XRCA45L106K200CT-E600	20	10	C	85	125	15	2.0	6	600	0.387	0.232	0.155
XRCA45L106K200CT-E1K0	20	10	C	85	125	15	2.0	6	1000	0.300	0.180	0.120
XRCA45L106K200DT-E500	20	10	D	85	125	15	2.0	6	500	0.458	0.275	0.183
XRCA45L106K200DT-E1K0	20	10	D	85	125	15	2.0	6	1000	0.324	0.194	0.130
XRCA45L156K200BT-E1K5	20	15	B	85	125	15	3.0	6	1500	0.224	0.134	0.089
XRCA45L156K200BT-E1K8	20	15	B	85	125	15	3.0	6	1800	0.204	0.122	0.082
XRCA45L156K200CT-E800	20	15	C	85	125	15	3.0	6	800	0.335	0.201	0.134
XRCA45L156K200CT-E1K0	20	15	C	85	125	15	3.0	6	1000	0.300	0.180	0.120
XRCA45L156K200DT-E600	20	15	D	85	125	15	3.0	6	600	0.418	0.251	0.167
XRCA45L155K200DT-E800	20	15	D	85	125	15	3.0	6	800	0.362	0.217	0.145
XRCA45L226K200CT-E600	20	22	C	85	125	15	4.4	6	600	0.387	0.232	0.155

- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
4. If the ambient temperature is higher than +85 °C, the rated voltage needs to be reduced for use (The leakage current parameter is the reading after 5 minutes of power on)
5. For special sizes or requirements, please contact us.

RATING & PART NUMBER REFERENCE

Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L226K200CT-E900	20	22	C	85	125	15	4.4	6	900	0.316	0.190	0.126
XRCA45L226K200DT-E400	20	22	D	85	125	15	4.4	6	400	0.512	0.307	0.205
XRCA45L226K200DT-E600	20	22	D	85	125	15	4.4	6	600	0.418	0.251	0.167
XRCA45L335K200CT-E600	20	33	C	85	125	15	6.6	6	600	0.387	0.232	0.155
XRCA45L336K200CT-E900	20	33	C	85	125	15	6.6	6	900	0.316	0.190	0.126
XRCA45L336K200DT-E400	20	33	D	85	125	15	6.6	6	400	0.512	0.307	0.205
XRCA45L336K200DT-E600	20	33	D	85	125	15	6.6	6	600	0.418	0.251	0.167
XRCA45L476K200CT-E300	20	47	C	85	125	15	9.4	8	300	0.548	0.329	0.219
XRCA45L476K200CT-E400	20	47	C	85	125	15	9.4	8	400	0.474	0.285	0.190
XRCA45L476K200DT-E250	20	47	D	85	125	15	9.4	8	250	0.648	0.389	0.259
XRCA45L476K200DT-E500	20	47	D	85	125	15	9.4	8	500	0.458	0.275	0.183
XRCA45L476K200ET-E250	20	47	E	85	125	15	9.4	6	250	0.707	0.424	0.283
XRCA45L476K200ET-E500	20	47	E	85	125	15	9.4	6	500	0.500	0.300	0.200
XRCA45L686K200DT-E250	20	68	D	85	125	15	13.6	8	250	0.648	0.389	0.259
XRCA45L686K200DT-E300	20	68	D	85	125	15	13.6	8	300	0.592	0.355	0.237
XRCA45L686K200ET-E250	20	68	E	85	125	15	13.6	6	250	0.707	0.424	0.283
XRCA45L686K200ET-E500	20	68	E	85	125	15	13.6	6	500	0.500	0.300	0.200
XRCA45L107K200DT-E300	20	100	D	85	125	15	20.0	10	300	0.592	0.355	0.237
XRCA45L107K200DT-E400	20	100	D	85	125	15	20.0	10	400	0.512	0.307	0.205
XRCA45L107K200ET-E250	20	100	E	85	125	15	20.0	10	250	0.707	0.424	0.283
XRCA45L107K200ET-E300	20	100	E	85	125	15	20.0	10	300	0.645	0.387	0.258
XRCA45L157K200DT-E450	20	150	D	85	125	15	30.0	10	450	0.483	0.290	0.193
XRCA45L157K200DT-E600	20	150	D	85	125	15	30.0	10	600	0.418	0.251	0.167
XRCA45L157K200ET-E180	20	150	E	85	125	15	30.0	10	180	0.833	0.500	0.333
XRCA45L157K200ET-E250	20	150	E	85	125	15	30.0	10	250	0.707	0.424	0.283
XRCA45L227K200ET-E450	20	220	E	85	125	15	44.0	12	450	0.527	0.316	0.211
XRCA45L227K200ET-E600	20	220	E	85	125	15	44.0	12	600	0.456	0.274	0.183
XRCA45L227K200VT-E250	20	220	V	85	125	15	44.0	12	250	0.775	0.465	0.310
XRCA45L227K200VT-E400	20	220	V	85	125	15	44.0	12	400	0.612	0.367	0.245
XRCA45L337K200ET-E450	20	330	E	85	125	15	66.0	12	450	0.527	0.316	0.211
XRCA45L337K200ET-E600	20	330	E	85	125	15	66.0	12	600	0.456	0.274	0.183
XRCA45L337K200VT-E450	20	330	V	85	125	15	66.0	12	450	0.577	0.346	0.231
XRCA45L337K200VT-E600	20	330	V	85	125	15	66.0	12	600	0.500	0.300	0.200
XRCA45L155K250AT-E4K5	25	1.5	A	85	125	17	0.5	6	4500	0.120	0.072	0.048

- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
4. If the ambient temperature is higher than +85 °C, the rated voltage needs to be reduced for use (The leakage current parameter is the reading after 5 minutes of power on)
5. For special sizes or requirements, please contact us.

RATING & PART NUMBER REFERENCE

Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L155K250AT-E7K5	25	1.5	A	85	125	17	0.5	6	7500	0.093	0.056	0.037
XRCA45L155K250BT-E3K0	25	1.5	B	85	125	17	0.5	6	3000	0.158	0.095	0.063
XRCA45L155K250BT-E5K0	25	1.5	B	85	125	17	0.5	6	5000	0.122	0.073	0.049
XRCA45L225K250AT-E3K0	25	2.2	A	85	125	17	0.6	6	3000	0.147	0.088	0.059
XRCA45L225K250AT-E8K0	25	2.2	A	85	125	17	0.6	6	8000	0.090	0.054	0.036
XRCA45L225K250BT-E2K5	25	2.2	B	85	125	17	0.6	6	2500	0.173	0.104	0.069
XRCA45L225K250BT-E5K0	25	2.2	B	85	125	17	0.6	6	5000	0.122	0.073	0.049
XRCA45L335K250BT-E2K0	25	3.3	B	85	125	17	0.8	6	2000	0.194	0.116	0.077
XRCA45L335K250BT-E3K0	25	3.3	B	85	125	17	0.8	6	3000	0.158	0.095	0.063
XRCA45L335K250CT-E1K2	25	3.3	C	85	125	17	0.8	6	1200	0.274	0.164	0.110
XRCA45L335K250CT-E2K0	25	3.3	C	85	125	17	0.8	6	2000	0.212	0.127	0.085
XRCA45L475K250BT-E1K0	25	4.7	B	85	125	17	1.2	6	1000	0.274	0.164	0.110
XRCA45L475K250BT-E1K2	25	4.7	B	85	125	17	1.2	6	1200	0.250	0.150	0.100
XRCA45L475K250CT-E1K0	25	4.7	C	85	125	17	1.2	6	1000	0.300	0.180	0.120
XRCA45L475K250CT-E2K0	25	4.7	C	85	125	17	1.2	6	2000	0.212	0.127	0.085
XRCA45L685K250BT-E2K0	25	6.8	B	85	125	17	1.7	6	2000	0.194	0.116	0.077
XRCA45L685K250BT-E2K5	25	6.8	B	85	125	17	1.7	6	2500	0.173	0.104	0.069
XRCA45L685K250CT-E1K0	25	6.8	C	85	125	17	1.7	6	1000	0.300	0.180	0.120
XRCA45L685K250CT-E1K5	25	6.8	C	85	125	17	1.7	6	1500	0.245	0.147	0.098
XRCA45L685K250DT-E700	25	6.8	D	85	125	17	1.7	6	700	0.387	0.232	0.155
XRCA45L685K250DT-E1K0	25	6.8	D	85	125	17	1.7	6	1000	0.324	0.194	0.130
XRCA45L106K250BT-E1K5	25	10	B	85	125	17	2.5	8	1500	0.224	0.134	0.089
XRCA45L106K250BT-E2K0	25	10	B	85	125	17	2.5	8	2000	0.194	0.116	0.077
XRCA45L106K250CT-E900	25	10	C	85	125	17	2.5	6	900	0.316	0.190	0.126
XRCA45L106K250CT-E1K2	25	10	C	85	125	17	2.5	6	1200	0.274	0.164	0.110
XRCA45L106K250DT-E450	25	10	D	85	125	17	2.5	6	450	0.483	0.290	0.193
XRCA45L106K250DT-E800	25	10	D	85	125	17	2.5	6	800	0.362	0.217	0.145
XRCA45L156K250CT-E500	25	15	C	85	125	17	3.8	6	500	0.424	0.255	0.170
XRCA45L156K250CT-E1K0	25	15	C	85	125	17	3.8	6	1000	0.300	0.180	0.120
XRCA45L156K250DT-E400	25	15	D	85	125	17	3.8	6	400	0.512	0.307	0.205
XRCA45L156K250DT-E600	25	15	D	85	125	17	3.8	6	600	0.418	0.251	0.167
XRCA45L226K250CT-E800	25	22	C	85	125	17	5.5	6	800	0.335	0.201	0.134
XRCA45L226K250CT-E1K0	25	22	C	85	125	17	5.5	6	1000	0.300	0.180	0.120
XRCA45L226K250DT-E400	25	22	D	85	125	17	5.5	6	400	0.512	0.307	0.205

- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
4. If the ambient temperature is higher than +85 °C, the rated voltage needs to be reduced for use (The leakage current parameter is the reading after 5 minutes of power on)
5. For special sizes or requirements, please contact us.

RATING & PART NUMBER REFERENCE

Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L226K250DT-E600	25	22	D	85	125	17	5.5	6	600	0.418	0.251	0.167
XRCA45L336K250DT-E300	25	33	D	85	125	17	8.3	8	300	0.592	0.355	0.237
XRCA45L336K250DT-E500	25	33	D	85	125	17	8.3	8	500	0.458	0.275	0.183
XRCA45L336K250ET-E250	25	33	E	85	125	17	8.3	6	250	0.707	0.424	0.283
XRCA45L336K250ET-E500	25	33	E	85	125	17	8.3	6	500	0.500	0.300	0.200
XRCA45L476K250DT-E350	25	47	D	85	125	17	11.8	8	350	0.548	0.329	0.219
XRCA45L476K250DT-E500	25	47	D	85	125	17	11.8	8	500	0.458	0.275	0.183
XRCA45L476K250ET-E300	25	47	E	85	125	17	11.8	6	300	0.645	0.387	0.258
XRCA45L476K250ET-E600	25	47	E	85	125	17	11.8	6	600	0.456	0.274	0.183
XRCA45L686K250ET-E250	25	68	E	85	125	17	17.0	8	250	0.707	0.424	0.283
XRCA45L686K250ET-E500	25	68	E	85	125	17	17.0	8	500	0.500	0.300	0.200
XRCA45L686K250VT-E250	25	68	V	85	125	17	17.0	8	250	0.775	0.465	0.310
XRCA45L686K250VT-E600	25	68	V	85	125	17	17.0	8	600	0.500	0.300	0.200
XRCA45L107K250ET-E200	25	100	E	85	125	17	25.0	10	200	0.791	0.474	0.316
XRCA45L107K250ET-E250	25	100	E	85	125	17	25.0	10	250	0.707	0.424	0.283
XRCA45L107K250VT-E200	25	100	V	85	125	17	25.0	10	200	0.866	0.520	0.346
XRCA45L107K250VT-E250	25	100	V	85	125	17	25.0	10	250	0.775	0.465	0.310
XRCA45L157K250ET-E600	25	150	E	85	125	17	37.5	10	600	0.456	0.274	0.183
XRCA45L157K250VT-E300	25	150	V	85	125	17	37.5	10	300	0.707	0.424	0.283
XRCA45L474K350AT-E4K0	35	0.47	A	85	125	23	0.5	6	4000	0.127	0.076	0.051
XRCA45L474K350AT-E8K0	35	0.47	A	85	125	23	0.5	6	8000	0.090	0.054	0.036
XRCA45L684K350AT-E6K0	35	0.68	A	85	125	23	0.5	6	6000	0.104	0.062	0.042
XRCA45L684K350AT-E7K0	35	0.68	A	85	125	23	0.5	6	7000	0.096	0.058	0.039
XRCA45L105K350AT-E6K0	35	1	A	85	125	23	0.5	6	6000	0.104	0.062	0.042
XRCA45L105K350AT-E7K0	35	1	A	85	125	23	0.5	6	7000	0.096	0.058	0.039
XRCA45L105K350BT-E2K5	35	1	B	85	125	23	0.5	4	2500	0.173	0.104	0.069
XRCA45L105K350BT-E3K0	35	1	B	85	125	23	0.5	4	3000	0.158	0.095	0.063
XRCA45L155K350BT-E3K0	35	1.5	B	85	125	23	0.5	6	3000	0.158	0.095	0.063
XRCA45L155K350BT-E4K0	35	1.5	B	85	125	23	0.5	6	4000	0.137	0.082	0.055
XRCA45L155K350CT-E2K5	35	1.5	C	85	125	23	0.5	6	2500	0.190	0.114	0.076
XRCA45L155K350CT-E3K0	35	1.5	C	85	125	23	0.5	6	3000	0.173	0.104	0.069
XRCA45L225K350BT-E2K5	35	2.2	B	85	125	23	0.8	6	2500	0.173	0.104	0.069
XRCA45L225K350BT-E3K0	35	2.2	B	85	125	23	0.8	6	3000	0.158	0.095	0.063
XRCA45L225K350CT-E2K0	35	2.2	C	85	125	23	0.8	6	2000	0.212	0.127	0.085

- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
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Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L225K350CT-E2K5	35	2.2	C	85	125	23	0.8	6	2500	0.190	0.114	0.076
XRCA45L335K350BT-E2K5	35	3.3	B	85	125	23	1.2	6	2500	0.173	0.104	0.069
XRCA45L335K350BT-E3K0	35	3.3	B	85	125	23	1.2	6	3000	0.158	0.095	0.063
XRCA45L335K350CT-E1K2	35	3.3	C	85	125	23	1.2	6	1200	0.274	0.164	0.110
XRCA45L335K350CT-E2K0	35	3.3	C	85	125	23	1.2	6	2000	0.212	0.127	0.085
XRCA45L475K350BT-E2K0	35	4.7	B	85	125	23	1.6	8	2000	0.194	0.116	0.077
XRCA45L475K350BT-E2K5	35	4.7	B	85	125	23	1.6	8	2500	0.173	0.104	0.069
XRCA45L475K350CT-E800	35	4.7	C	85	125	23	1.6	6	800	0.335	0.201	0.134
XRCA45L475K350CT-E1K0	35	4.7	C	85	125	23	1.6	6	1000	0.300	0.180	0.120
XRCA45L475K350DT-E700	35	4.7	D	85	125	23	1.6	6	700	0.387	0.232	0.155
XRCA45L475K350DT-E1K0	35	4.7	D	85	125	23	1.6	6	1000	0.324	0.194	0.130
XRCA45L685K350CT-E700	35	6.8	C	85	125	23	2.4	6	700	0.359	0.215	0.143
XRCA45L685K350CT-E1K2	35	6.8	C	85	125	23	2.4	6	1200	0.274	0.164	0.110
XRCA45L685K350DT-E600	35	6.8	D	85	125	23	2.4	6	600	0.418	0.251	0.167
XRCA45L685K350DT-E1K0	35	6.8	D	85	125	23	2.4	6	1000	0.324	0.194	0.130
XRCA45L106K350CT-E700	35	10	C	85	125	23	3.5	6	700	0.359	0.215	0.143
XRCA45L106K350CT-E1K0	35	10	C	85	125	23	3.5	6	1000	0.300	0.180	0.120
XRCA45L106K350DT-E400	35	10	D	85	125	23	3.5	6	400	0.512	0.307	0.205
XRCA45L106K350DT-E800	35	10	D	85	125	23	3.5	6	800	0.362	0.217	0.145
XRCA45L156K350DT-E350	35	15	D	85	125	23	5.3	6	350	0.548	0.329	0.219
XRCA45L156K350DT-E600	35	15	D	85	125	23	5.3	6	600	0.418	0.251	0.167
XRCA45L156K350ET-E300	35	15	E	85	125	23	5.3	6	300	0.645	0.387	0.258
XRCA45L156K350ET-E600	35	15	E	85	125	23	5.3	6	600	0.456	0.274	0.183
XRCA45L226K350DT-E400	35	22	D	85	125	23	7.7	6	400	0.512	0.307	0.205
XRCA45L226K350DT-E500	35	22	D	85	125	23	7.7	6	500	0.458	0.275	0.183
XRCA45L226K350ET-E300	35	22	E	85	125	23	7.7	6	300	0.645	0.387	0.258
XRCA45L226K350ET-E400	35	22	E	85	125	23	7.7	6	400	0.559	0.335	0.224
XRCA45L336K350DT-E500	35	33	D	85	125	23	11.6	8	500	0.458	0.275	0.183
XRCA45L336K350DT-E700	35	33	D	85	125	23	11.6	8	700	0.387	0.232	0.155
XRCA45L336K350ET-E300	35	33	E	85	125	23	11.6	6	300	0.645	0.387	0.258
XRCA45L336K350ET-E600	35	33	E	85	125	23	11.6	6	600	0.456	0.274	0.183
XRCA45L476K350DT-E400	35	47	D	85	125	23	16.5	8	400	0.512	0.307	0.205
XRCA45L476K350DT-E900	35	47	D	85	125	23	16.5	8	900	0.342	0.205	0.137
XRCA45L476K350ET-E400	35	47	E	85	125	23	16.5	6	400	0.559	0.335	0.224

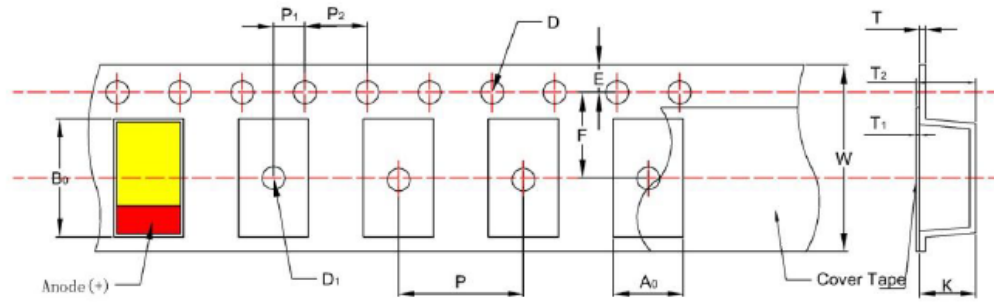
- 1.# Replace characters to represent capacity tolerance, where M represents ± 20%;
2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
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Code	Rated Voltage (V)	Nominal Capacity (μF)	Shell No.	Rated Temp. (°C)	Cat. Temp. (°C)	Cat. Voltage (V)	Max LC (μA) @25°C	Max loss (%) @25°C 100Hz	ESR Max value(mΩ) @25°C 100KHz	Max allowable ripple current@100KHz IRMS (A)		
										25°C	85°C	125°C
XRCA45L476K350ET-E600	35	47	E	85	125	23	16.5	6	600	0.456	0.274	0.183
XRCA45L686K350ET-E800	35	68	E	85	125	23	23.8	8	800	0.395	0.237	0.158
XRCA45L474K500AT-E3K0	50	0.47	A	85	125	33	0.5	6	3000	0.147	0.088	0.059
XRCA45L474K500AT-E6K0	50	0.47	A	85	125	33	0.5	6	6000	0.104	0.062	0.042
XRCA45L684K500BT-E3K0	50	0.68	B	85	125	33	0.5	6	3000	0.158	0.095	0.063
XRCA45L684K500BT-E6K0	50	0.68	B	85	125	33	0.5	6	6000	0.112	0.067	0.045
XRCA45L105K500BT-E2K5	50	1	B	85	125	33	0.5	6	2500	0.173	0.104	0.069
XRCA45L105K500BT-E4K0	50	1	B	85	125	33	0.5	6	4000	0.137	0.082	0.055
XRCA45L105K500CT-E1K8	50	1	C	85	125	33	0.5	4	1800	0.224	0.134	0.089
XRCA45L105K500CT-E4K0	50	1	C	85	125	33	0.5	4	4000	0.150	0.090	0.060
XRCA45L155K500CT-E1K8	50	1.5	C	85	125	33	0.8	6	1800	0.224	0.134	0.089
XRCA45L155K500CT-E3K0	50	1.5	C	85	125	33	0.8	6	3000	0.173	0.104	0.069
XRCA45L155K500DT-E1K0	50	1.5	D	85	125	33	0.8	6	1000	0.324	0.194	0.130
XRCA45L155K500DT-E2K5	50	1.5	D	85	125	33	0.8	6	2500	0.205	0.123	0.082
XRCA45L225K500CT-E1K5	50	2.2	C	85	125	33	1.1	6	1500	0.245	0.147	0.098
XRCA45L225K500CT-E2K0	50	2.2	C	85	125	33	1.1	6	2000	0.212	0.127	0.085
XRCA45L225K500DT-E700	50	2.2	D	85	125	33	1.1	6	700	0.387	0.232	0.155
XRCA45L225K500DT-E1K0	50	2.2	D	85	125	33	1.1	6	1000	0.324	0.194	0.130
XRCA45L335K500CT-E700	50	3.3	C	85	125	33	1.7	6	700	0.359	0.215	0.143
XRCA45L335K500CT-E1K5	50	3.3	C	85	125	33	1.7	6	1500	0.245	0.147	0.098
XRCA45L335K500DT-E700	50	3.3	D	85	125	33	1.7	6	700	0.387	0.232	0.155
XRCA45L335K500DT-E1K5	50	3.3	D	85	125	33	1.7	6	1500	0.265	0.159	0.106
XRCA45L475K500CT-E700	50	4.7	C	85	125	33	2.4	6	700	0.359	0.215	0.143
XRCA45L475K500CT-E1K0	50	4.7	C	85	125	33	2.4	6	1000	0.300	0.180	0.120
XRCA45L475K500DT-E600	50	4.7	D	85	125	33	2.4	6	600	0.418	0.251	0.167
XRCA45L475K500DT-E1K0	50	4.7	D	85	125	33	2.4	6	1000	0.324	0.194	0.130
XRCA45L685K500DT-E600	50	6.8	D	85	125	33	3.4	6	600	0.418	0.251	0.167
XRCA45L685K500DT-E800	50	6.8	D	85	125	33	3.4	6	800	0.362	0.217	0.145
XRCA45L685K500ET-E500	50	6.8	E	85	125	33	3.4	6	500	0.500	0.300	0.200
XRCA45L685K500ET-E1K0	50	6.8	E	85	125	33	3.4	6	1000	0.354	0.212	0.141
XRCA45L106K500DT-E400	50	10	D	85	125	33	5.0	6	400	0.512	0.307	0.205
XRCA45L106K500DT-E600	50	10	D	85	125	33	5.0	6	600	0.418	0.251	0.167
XRCA45L106K500ET-E400	50	10	E	85	125	33	5.0	6	400	0.559	0.335	0.224
XRCA45L106K500ET-E800	50	10	E	85	125	33	5.0	6	800	0.395	0.237	0.158

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2. Please do not use a multimeter to measure;
3. Capacity and loss measurement conditions: 100Hz, U_r=2.2 0-1V, U_~=1.00 V, Frequency=100Hz, measured in series
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Packaging



Embossed (Plastic) Carrier Tape Dimensions

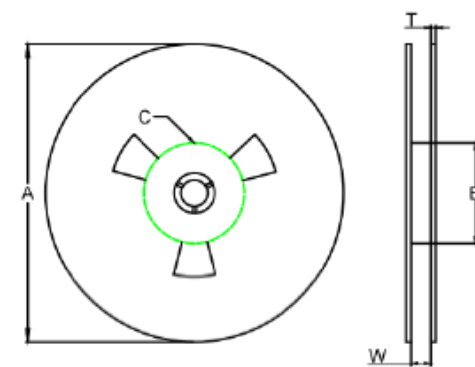
Diagram of Taping Dimensions

Case	A0±0.10	B0±0.10	K±0.10	W±0.30	E±0.10	F±0.05	P±0.10	P1±0.05	P2±0.10	D+0.20	D1+0.25
A	1.83	3.57	1.65	8	1.75	3.5	4	2	4	1.5	1
B	3.15	3.77	2.22	8	1.75	3.5	4	2	4	1.5	1
C	3.45	6.4	2.92	12	1.75	5.5	8	2	4	1.5	1.5
D	4.48	7.62	3.22	12	1.75	5.5	8	2	4	1.5	1.5
E	4.5	7.5	4.5	12	1.75	5.5	8	2	4	1.5	1.5
V	6.4	7.6	4.4	6	1.75	5.5	8	2	4	1.5	1.5

±0.2mm over 10 sprocket hole spaces

Reel Dimensions

Reel Size	Tape Wide	A	B	C	W	T
180mm (7")	8mm	178±2.00	50 min	13.0±0.50	8.4+1.5/-0	1.50±0.50
180mm (7")	12mm	178±2.00	50 min	13.0±0.50	8.4+1.5/-0	1.50±0.50
180mm (7")	12mm	178±2.00	50 min	13.0±0.50	8.4+1.5/-0	1.50±0.50



Reel Dimensions

Packaging Quantity

Case size	A	B	C	D	E	V	W
Quantity (pcs / plate)	2000	2000	500	500	400	400	400

Packaging Quantity

Case code	Metric Size	Density Level A: Maximum (Most) Land Protrusion (mm)					Density Level B : Median (Nominal) Land Protrusion (mm)					Density Level C: Minimum (Least) Land Protrusion (mm)				
		W	L	S	V1	V2	W	L	S	V1	V2	W	L	S	V1	V2
A	3216-18	1.35	2.20	0.62	6.02	2.8	1.23	1.8	0.82	4.92	2.3	1.13	1.42	0.98	4.06	2.04
B	3528-21	2.35	2.21	0.92	6.32	4.0	2.23	1.8	1.12	5.22	3.5	2.13	1.42	1.28	4.36	3.24
C	6032-25	2.35	2.77	2.37	8.92	4.5	2.23	2.37	2.57	7.82	4	2.13	1.99	2.73	6.96	3.74
D	7343-31	2.55	2.77	3.67	10.22	5.6	2.43	2.37	3.87	9.12	5.1	2.33	1.99	4.03	8.26	4.84
E	7343-43	2.55	2.77	3.67	10.22	5.6	2.43	2.37	3.87	9.12	5.1	2.33	1.99	4.03	8.26	4.84

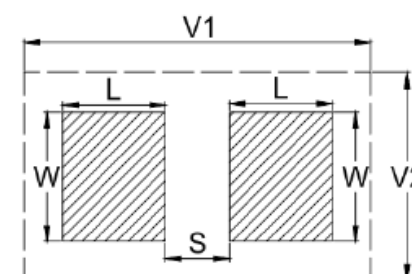
Density Level A: For low-density product applications. Recommended for wave solder applications and provides a wider process window for reflow solder processes.

Density Level B: For products with a moderate level of component density. Provides a robust solder attachment condition for reflow solder processes.

Density Level C: For high component density product applications. Before adapting the minimum land pattern variations the user should perform qualification testing based on the conditions outlined in IPC standard 7351 (IPC-7351).

1 Height of these chips may create problems in wave soldering.

2 Land pattern geometry is too small for silkscreen outline.



Surface Mount Footprints

Soldering Process

XIANGYEE tantalum capacitors are compatible with wave (single or dual), convection, IR, or vapor phase reflow techniques. Preheating of these components is recommended to avoid extreme thermal stress. XIANGYEE's recommended profile conditions for convection and IR reflow reflect the profile conditions of the IPC/J-STD-020D standard for moisture sensitivity testing. The devices can safely withstand a maximum of three reflow passes at these conditions.

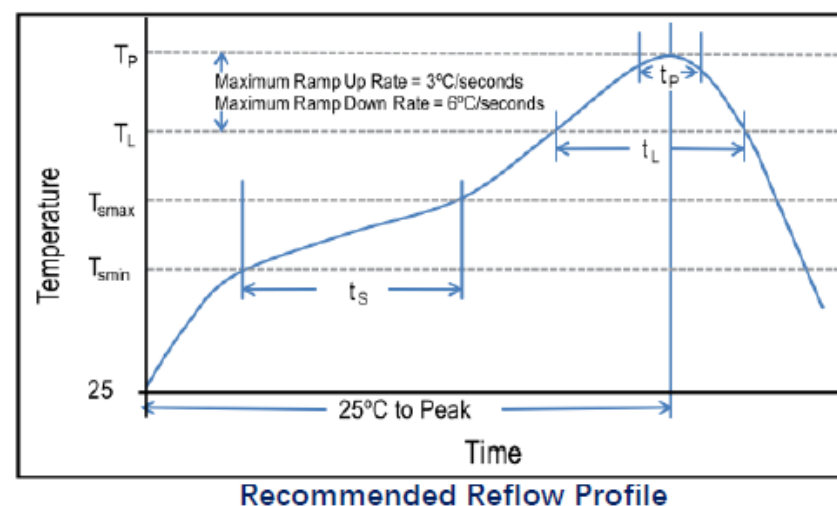
Hand soldering should be performed with care due to the difficulty in process control. If performed, care should be taken to avoid contact of the soldering iron to the molded case. The iron should be used to heat the solder pad, applying solder between the pad and the termination, until reflow occurs. Once reflow occurs, the iron should be removed immediately. "Wiping" the edges of a chip and heating the top surface is not recommended.

During typical reflow operations, a slight darkening of the gold-colored epoxy may be observed. This slight darkening is normal and not harmful to the product. Marking permanency is not affected by this change.

Profile Feature	SnPb Assembly	Pb-Free Assembly
Preheat/Soak		
Temperature Minimum (T _{Smin})	100° C	100° C
Temperature Maximum (T _{Smax})	150° C	150° C
Time (ts) from T _{Smin} to T _{Smax})	60 – 120 seconds	60 – 120 seconds
Ramp-up Rate (TL to TP)	3° C/seconds maximum	3° C/seconds maximum
Liquidous Temperature (TL)	183° C	217° C
Time Above Liquidous (tL)	60 – 150 seconds	60 – 150 seconds
Peak Temperature (TP)	220° C* , 235° C*	250° C* , 260° C*
Time within 5° C of Maximum Peak Temperature (tP)	20 seconds maximum	30 seconds maximum
Ramp-down Rate (TP to TL)	6° C/seconds maximum	6° C/seconds maximum
Time 25° C to Peak Temperature	6 minutes maximum	8 minutes maximum

Note: All temperatures refer to the center of the package, measured on the package body surface that is facing up during assembly reflow.

*Case Size D, E**Case Size A, B, C



Storage

Tantalum dielectric chip capacitors are unaffected by the following storage condition for 2 years:

Temperature: -10°C – +50°C Humidity: 75% RH maximum

Atmospheric pressure: 860 mbar ~ 1060mbar

Tantalum capacitors exhibit a very low random failure rate after long periods of storage and apart from this there are no known modes of failure under normal storage conditions. All capacitors will withstand any environmental conditions within their ratings for the periods given in the detail specifications. Storage for longer periods under high humidity conditions may affect the leakage current of resin protected capacitors. Solderability of solder coated surfaces may be affected by storage of excess of 2 years.