

◆ Features

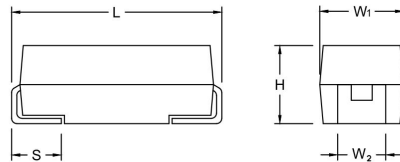
Automotive Grade
 Operating Standard QJ/XY06-2015
 IATF16949 Certified Factory
 Military Parts Qualified Factory
 RoHS and REACH Compliance

◆ Application

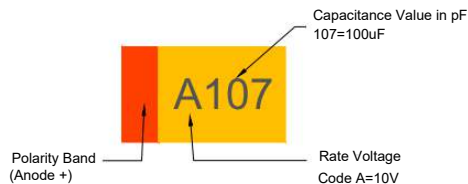
Typical applications include decoupling and filtering in industrial and automotive end applications, such as DC/DC converters, portable electronics, telecommunications, and control units.

◆ Dimensions (Unit: mm)

Case Code	EIA Code	EIA Metric	L	W1	H	S	W2
A	1206	3216-16	3.20±0.20	1.60±0.20	1.60±0.20	0.80±0.20	1.20±0.20
B	1210	3528-19	3.50±0.20	2.80±0.20	1.90±0.20	0.80±0.20	2.20±0.20
C	2312	6032-25	6.00±0.20	3.20±0.20	2.50±0.20	1.30±0.20	2.20±0.20
D	2917	7343-28	7.30±0.20	4.30±0.20	2.80±0.20	1.30±0.20	2.40±0.20
E	2917	7343-43	7.30±0.40	4.30±0.40	4.10±0.40	1.30±0.20	2.40±0.20
H	2917	7343-21	7.30±0.40	4.30±0.40	2.10±0.40	1.30±0.20	2.40±0.20
V	2924	7361-36	7.30±0.40	6.10±0.40	3.60±0.40	1.35±0.20	3.00±0.20



◆ Marking on Capacitors Body



Voltage Code	G	J	A	C	D	E	V	H	T	63	75
Rated Voltage	4V	6.3V	10V	16V	20V	25V	35V	40V	50V	63V	75V

◆ TECHNICAL SPECIFICATIONS

Technical Data:	All technical data relate to an ambient temperature of +25°C								
Capacitance Range:	0.68μF ~ 680μF								
Capacitance Tolerance:	±10%; ±20%;								
Rated Voltage (V _R) ≤+85°C	4	6.3	10	16	20	25	35	50	
Category Voltage (V _C) ≤+125°C	2.7	4	6.3	10	15	17	23	33	
Surge Voltage (V _S) ≤+85°C	5.2	8	13	20	26	32	46	65	
Surge Voltage (V _S) ≤+125°C	3.4	5	8	13	16	20	28	40	
Operating Temperature:	-55°C to +125°C								



◆ **Rated Voltage, Category Voltage, Nominal Capacitance, Case Size**

Rated Voltage (V)		4	6.3	10	16	20	25	35	50
Voltage Code		G	J	A	C	D	E	V	T
Cap (µF)	Cap Code	Case Size							
0.1	104							A	A
0.15	154							A	A/B
0.22	224							A	A/B
0.33	334						A	A	A/B
0.47	474						A	A/B	A/B/C
0.68	684					A	A	A/B	B/C
1	105				A	A	A/B	A/B	B/C
1.5	155			A	A	A	A/B	A/B/C	C/D
2.2	225		A	A/B	A	A/B	A/B/C	A/B/C	C/D
3.3	335		A	A	A/B	A/B	A/B/C	B/C	C/D
4.7	475		A	A/B	A/B/C	A/B/C	A/B/C	B/C/D	C/D/E
6.8	685		A/B	A/B	A/B/C	A/B/C	B/C/D	C/D/E/H	D/E/V
10	106		A/B	A/B/C	A/B/C	A/B/C	B/C/D	C/D/E/H	D/E
15	156		A/B/C	A/B/C	A/B/C	B/C/D	C/D/E	D/E/V	E
22	226	A	A/B/C	A/B/C	B/C/D	B/C/D	C/D/E	D/E	E
33	336	A	A/B/C	A/B/C/D	B/C/D	C/D/E	D/E/V	D/E	
47	476	A	A/B/C/D	B/C/D	C/D	C/D/E/V	D/E	E/H/V	
68	686	A	A/B/C/D	B/C/D/E	C/D/E	D/E	D/E/V		
100	107	A/B	B/C/D	C/D/E	D/E	E/H/V	E/V		
150	157		B/C/D/E	C/D/E	D/E	D			
220	227		C/D/E/V	D/E	E				
330	337		D/E/H/V	D/E/H/V					
470	477		D/E/H/V	E					
680	687		E/V						

◆ **How to order**

<u>QCA45</u>	<u>C</u>	<u>106</u>	<u>M</u>	<u>035</u>	<u>R</u>	<u>-</u>
↓	↓	↓	↓	↓	↓	↓
<u>Type</u>	<u>Case Size</u>	<u>Capacitance code</u>	<u>Tolerance</u>	<u>Rated DC Voltage</u>	<u>Package</u>	<u>Additional characters may be added for special requirements</u>
QCA45	See size table	pF Code: 1st two digits represent significant figures 3rd digit represents multiplier (number of zeros to follow) 106 = 10µF 107 = 100µF	K: +/-10% M: +/-20%	Code 035: 35VDC 006 = 6.3VDC 010 = 10VDC 025 = 25VDC 035 = 35VDC 050 = 50VDC	R: Tape & Reel	



QCA45 Chip Tantalum Capacitors (Automotive Grade)

◆Table 3 Electrical Characteristics

Part Number	Case Code	Nominal Capacitance	Rated Voltage	Max DCL at +25°C	Max DF at +25°C 100Hz	Max ESR +25°CΩ	Ripple Current (A) 100KHz Max			Category Temperature	MSL
							+25°C	+85°C	+125°C		
		μF	V	μA	%	Ω			°C		
QCA45A226#004R	A	22	4	0.9	6	2.5	0.161	0.097	0.064	125	1
QCA45A336#004R	A	33	4	1.3	8	3	0.147	0.088	0.059	125	1
QCA45A476#004R	A	47	4	1.9	12	2.5	0.161	0.097	0.064	125	1
QCA45A686#004R	A	68	4	2.7	24	2.5	0.161	0.097	0.064	125	1
QCA45A107#004R	A	100	4	4.0	30	2	0.180	0.108	0.072	125	1
QCA45B107#004R	B	100	4	4.0	14	0.9	0.289	0.173	0.116	125	1
QCA45A225#006R	A	2.2	6.3	0.5	6	8	0.090	0.054	0.036	125	1
QCA45A335#006R	A	3.3	6.3	0.5	6	8	0.090	0.054	0.036	125	1
QCA45A475#006R	A	4.7	6.3	0.5	6	6	0.104	0.062	0.042	125	1
QCA45A685#006R	A	6.8	6.3	0.5	6	6	0.104	0.062	0.042	125	1
QCA45B685#006R	B	6.8	6.3	0.5	6	3.5	0.146	0.088	0.058	125	1
QCA45A106#006R	A	10	6.3	0.6	6	4	0.127	0.076	0.051	125	1
QCA45B106#006R	B	10	6.3	0.6	6	3.5	0.146	0.088	0.058	125	1
QCA45A156#006R	A	15	6.3	0.9	6	3.5	0.136	0.082	0.054	125	1
QCA45B156#006R	B	15	6.3	0.9	6	3	0.158	0.095	0.063	125	1
QCA45C156#006R	C	15	6.3	0.9	6	1.8	0.224	0.134	0.090	125	1
QCA45A226#006R	A	22	6.3	1.4	6	4	0.127	0.076	0.051	125	1
QCA45B226#006R	B	22	6.3	1.4	6	3.5	0.146	0.088	0.058	125	1
QCA45C226#006R	C	22	6.3	1.4	6	2	0.212	0.127	0.085	125	1
QCA45A336#006R	A	33	6.3	2.1	12	2.5	0.161	0.097	0.064	125	1
QCA45B336#006R	B	33	6.3	2.1	6	3	0.158	0.095	0.063	125	1
QCA45C336#006R	C	33	6.3	2.1	6	1.8	0.224	0.134	0.090	125	1
QCA45A476#006R	A	47	6.3	3.0	12	3.5	0.136	0.082	0.054	125	1
QCA45B476#006R	B	47	6.3	3.0	6	2	0.194	0.116	0.078	125	1
QCA45C476#006R	C	47	6.3	3.0	6	1.8	0.224	0.134	0.090	125	1
QCA45D476#006R	D	47	6.3	3.0	6	0.8	0.362	0.217	0.145	125	1
QCA45A686#006R	A	68	6.3	4.3	20	4	0.127	0.076	0.051	125	1
QCA45B686#006R	B	68	6.3	4.3	8	0.9	0.289	0.173	0.116	125	1
QCA45C686#006R	C	68	6.3	4.3	6	1.5	0.245	0.147	0.098	125	1
QCA45D686#006R	D	68	6.3	4.3	6	0.8	0.362	0.217	0.145	125	1
QCA45B107#006R	B	100	6.3	6.3	14	3	0.158	0.095	0.063	125	1
QCA45C107#006R	C	100	6.3	6.3	8	0.9	0.316	0.190	0.126	125	1
QCA45D107#006R	D	100	6.3	6.3	8	0.9	0.342	0.205	0.137	125	3
QCA45B157#006R	B	150	6.3	9.5	18	1.2	0.250	0.150	0.100	125	1
QCA45C157#006R	C	150	6.3	9.5	8	1.3	0.263	0.158	0.105	125	1
QCA45D157#006R	D	150	6.3	9.5	8	0.9	0.342	0.205	0.137	125	3
QCA45E157#006R	E	150	6.3	9.5	6	0.3	1.118	0.671	0.447	125	1
QCA45C227#006R	C	220	6.3	13.9	14	1.2	0.274	0.164	0.110	125	1
QCA45D227#006R	D	220	6.3	13.9	8	0.7	0.387	0.232	0.155	125	1
QCA45E227#006R	E	220	6.3	13.9	8	0.7	0.423	0.254	0.169	125	1
QCA45V227#006R	V	220	6.3	13.9	8	0.3	1.000	0.600	0.400	125	1
QCA45D337#006R	D	330	6.3	20.8	8	0.4	0.512	0.307	0.205	125	1
QCA45E337#006R	E	330	6.3	20.8	8	0.4	0.559	0.335	0.224	125	1
QCA45H337#006R	H	330	6.3	20.8	8	0.3	0.707	0.424	0.283	125	1
QCA45V337#006R	V	330	6.3	20.8	8	0.5	0.548	0.329	0.219	125	1
QCA45D477#006R	D	470	6.3	29.6	16	0.4	0.512	0.307	0.205	125	3
QCA45E477#006R	E	470	6.3	29.6	10	0.4	0.559	0.335	0.224	125	1
QCA45H477#006R	H	470	6.3	29.6	10	0.3	0.791	0.475	0.316	125	1
QCA45V477#006R	V	470	6.3	29.6	10	0.4	0.612	0.367	0.245	125	1
QCA45E687#006R	E	680	6.3	42.8	10	0.5	0.500	0.300	0.200	125	3
QCA45V687#006R	V	680	6.3	42.8	10	0.5	0.548	0.329	0.219	125	3
QCA45A155#010R	A	1.5	10	0.5	6	8	0.090	0.054	0.036	125	1
QCA45A225#010R	A	2.2	10	0.5	6	8	0.090	0.054	0.036	125	1
QCA45B225#010R	B	2.2	10	0.5	6	3.5	0.146	0.088	0.058	125	1
QCA45A335#010R	A	3.3	10	0.5	6	6	0.104	0.062	0.042	125	1
QCA45A475#010R	A	4.7	10	0.5	6	6	0.104	0.062	0.042	125	1
QCA45B475#010R	B	4.7	10	0.5	6	4	0.137	0.082	0.055	125	1
QCA45A685#010R	A	6.8	10	0.7	6	6	0.104	0.062	0.042	125	1
QCA45B685#010R	B	6.8	10	0.7	6	3.5	0.146	0.088	0.058	125	1
QCA45A106#010R	A	10	10	1.0	6	4	0.127	0.076	0.051	125	1



Part Number	Case Code	Nominal Capacitance	Rated Voltage	Max DCL at +25°C	Max DF at +25°C 100Hz	Max ESR +25°CΩ	Ripple Current (A) 100KHz Max			Category Temperature	MSL
							+25°C	+85°C	+125°C		
		μF	V	μA	%	Ω				°C	
QCA45B106#010R	B	10	10	1.0	6	3.5	0.146	0.088	0.058	125	1
QCA45C106#010R	C	10	10	1.0	6	1.8	0.224	0.134	0.090	125	1
QCA45A156#010R	A	15	10	1.5	6	6	0.104	0.062	0.042	125	1
QCA45B156#010R	B	15	10	1.5	6	3.5	0.146	0.088	0.058	125	1
QCA45C156#010R	C	15	10	1.5	6	2	0.212	0.127	0.085	125	1
QCA45A226#010R	A	22	10	2.2	10	6	0.104	0.062	0.042	125	1
QCA45B226#010R	B	22	10	2.2	6	3	0.158	0.095	0.063	125	1
QCA45C226#010R	C	22	10	2.2	6	1.8	0.224	0.134	0.090	125	1
QCA45A336#010R	A	33	10	3.3	15	2.5	0.161	0.097	0.064	125	1
QCA45B336#010R	B	33	10	3.3	6	1.8	0.204	0.122	0.082	125	1
QCA45C336#010R	C	33	10	3.3	6	1.8	0.224	0.134	0.090	125	1
QCA45D336#010R	D	33	10	3.3	6	1.6	0.256	0.154	0.102	125	1
QCA45B476#010R	B	47	10	4.7	8	1	0.274	0.164	0.110	125	1
QCA45C476#010R	C	47	10	4.7	6	1.2	0.274	0.164	0.110	125	1
QCA45D476#010R	D	47	10	4.7	6	0.8	0.362	0.217	0.145	125	1
QCA45B686#010R	B	68	10	6.8	10	1.4	0.231	0.139	0.092	125	1
QCA45C686#010R	C	68	10	6.8	6	1.3	0.263	0.158	0.105	125	1
QCA45D686#010R	D	68	10	6.8	6	0.9	0.342	0.205	0.137	125	3
QCA45E686#010R	E	68	10	6.8	4	0.3	0.913	0.548	0.365	125	1
QCA45C107#010R	C	100	10	10.0	8	1.2	0.274	0.164	0.110	125	1
QCA45D107#010R	D	100	10	10.0	8	0.9	0.342	0.205	0.137	125	3
QCA45E107#010R	E	100	10	10.0	6	0.3	0.913	0.548	0.365	125	1
QCA45C157#010R	C	150	10	15.0	10	0.9	0.316	0.190	0.126	125	1
QCA45D157#010R	D	150	10	15.0	8	0.9	0.342	0.205	0.137	125	3
QCA45E157#010R	E	150	10	15.0	8	0.9	0.373	0.224	0.149	125	3
QCA45D227#010R	D	220	10	22.0	8	0.5	0.458	0.275	0.183	125	1
QCA45E227#010R	E	220	10	22.0	8	0.5	0.500	0.300	0.200	125	1
QCA45D337#010R	D	330	10	33.0	14	0.9	0.342	0.205	0.137	125	1
QCA45E337#010R	E	330	10	33.0	8	0.9	0.373	0.224	0.149	125	3
QCA45H337#010R	H	330	10	33.0	10	0.3	0.707	0.424	0.283	125	1
QCA45V337#010R	V	330	10	33.0	10	0.9	0.408	0.245	0.163	125	1
QCA45E477#010R	E	470	10	47.0	10	0.5	0.500	0.300	0.200	125	1
QCA45A105#016R	A	1	16	0.5	4	11	0.077	0.046	0.031	125	1
QCA45A155#016R	A	1.5	16	0.5	6	8	0.090	0.054	0.036	125	1
QCA45A225#016R	A	2.2	16	0.5	6	6.5	0.100	0.060	0.040	125	1
QCA45A335#016R	A	3.3	16	0.5	6	5	0.114	0.068	0.046	125	1
QCA45B335#016R	B	3.3	16	0.5	6	4.5	0.129	0.077	0.052	125	1
QCA45A475#016R	A	4.7	16	0.8	6	4	0.127	0.076	0.051	125	1
QCA45B475#016R	B	4.7	16	0.8	6	6	0.112	0.067	0.045	125	1
QCA45C475#016R	C	4.7	16	0.8	6	2.4	0.194	0.116	0.078	125	1
QCA45A685#016R	A	6.8	16	1.1	6	7	0.096	0.058	0.038	125	1
QCA45B685#016R	B	6.8	16	1.1	6	3.5	0.146	0.088	0.058	125	1
QCA45C685#016R	C	6.8	16	1.1	6	1.9	0.218	0.131	0.087	125	1
QCA45A106#016R	A	10	16	1.6	6	3	0.147	0.088	0.059	125	1
QCA45B106#016R	B	10	16	1.6	6	3.5	0.146	0.088	0.058	125	1
QCA45C106#016R	C	10	16	1.6	6	2	0.212	0.127	0.085	125	1
QCA45A156#016R	A	15	16	2.4	6	3	0.147	0.088	0.059	125	1
QCA45B156#016R	B	15	16	2.4	6	2.5	0.173	0.104	0.069	125	1
QCA45C156#016R	C	15	16	2.4	6	1.8	0.224	0.134	0.090	125	1
QCA45B226#016R	B	22	16	3.5	6	2.3	0.181	0.109	0.072	125	1
QCA45C226#016R	C	22	16	3.5	6	1.6	0.237	0.142	0.095	125	1
QCA45D226#016R	D	22	16	3.5	6	1.1	0.309	0.185	0.124	125	3
QCA45B336#016R	B	33	16	5.3	8	1.9	0.199	0.119	0.080	125	1
QCA45C336#016R	C	33	16	5.3	6	1.5	0.245	0.147	0.098	125	1
QCA45D336#016R	D	33	16	5.3	6	0.9	0.342	0.205	0.137	125	3
QCA45C476#016R	C	47	16	7.5	6	1.2	0.274	0.164	0.110	125	1
QCA45D476#016R	D	47	16	7.5	6	0.9	0.342	0.205	0.137	125	3
QCA45C686#016R	C	68	16	10.9	6	1.3	0.263	0.158	0.105	125	1
QCA45D686#016R	D	68	16	10.9	6	0.9	0.342	0.205	0.137	125	3
QCA45E686#016R	E	68	16	10.9	6	0.9	0.373	0.224	0.149	125	1
QCA45D107#016R	D	100	16	16.0	8	0.7	0.387	0.232	0.155	125	1
QCA45E107#016R	E	100	16	16.0	6	0.9	0.373	0.224	0.149	125	3
QCA45D157#016R	D	150	16	24.0	8	0.9	0.342	0.205	0.137	125	1
QCA45E157#016R	E	150	16	24.0	8	0.5	0.500	0.300	0.200	125	1

Part Number	Case Code	Nominal Capacitance	Rated Voltage	Max DCL at +25°C	Max DF at +25°C 100Hz	Max ESR +25°CΩ	Ripple Current (A) 100KHz Max			Category Temperature	MSL
							+25°C	+85°C	+125°C		
		μF	V	μA	%	Ω				°C	
QCA45E227#016R	E	220	16	35.2	10	0.5	0.500	0.300	0.200	125	1
QCA45A684#020R	A	0.68	20	0.5	4	12	0.074	0.044	0.030	125	1
QCA45A105#020R	A	1	20	0.5	4	10	0.081	0.049	0.032	125	1
QCA45A155#020R	A	1.5	20	0.5	6	8	0.090	0.054	0.036	125	1
QCA45A225#020R	A	2.2	20	0.5	6	7	0.096	0.058	0.038	125	1
QCA45B225#020R	B	2.2	20	0.5	6	3.6	0.144	0.086	0.058	125	1
QCA45A335#020R	A	3.3	20	0.7	6	4.5	0.120	0.072	0.048	125	1
QCA45B335#020R	B	3.3	20	0.7	6	3.5	0.146	0.088	0.058	125	1
QCA45A475#020R	A	4.7	20	0.9	6	4	0.127	0.076	0.051	125	1
QCA45B475#020R	B	4.7	20	0.9	6	3.5	0.146	0.088	0.058	125	1
QCA45C475#020R	C	4.7	20	0.9	6	2.4	0.194	0.116	0.078	125	1
QCA45A685#020R	A	6.8	20	1.4	6	6	0.104	0.062	0.042	125	1
QCA45B685#020R	B	6.8	20	1.4	6	2.5	0.173	0.104	0.069	125	1
QCA45C685#020R	C	6.8	20	1.4	6	2	0.212	0.127	0.085	125	1
QCA45A106#020R	A	10	20	2.0	8	3.5	0.136	0.082	0.054	125	1
QCA45B106#020R	B	10	20	2.0	6	2.1	0.189	0.113	0.076	125	1
QCA45C106#020R	C	10	20	2.0	6	1.8	0.224	0.134	0.090	125	1
QCA45B156#020R	B	15	20	3.0	6	2	0.194	0.116	0.078	125	1
QCA45C156#020R	C	15	20	3.0	6	1.7	0.230	0.138	0.092	125	1
QCA45D156#020R	D	15	20	3.0	6	1	0.324	0.194	0.130	125	1
QCA45B226#020R	B	22	20	4.4	8	1.9	0.199	0.119	0.080	125	1
QCA45C226#020R	C	22	20	4.4	6	1.6	0.237	0.142	0.095	125	1
QCA45D226#020R	D	22	20	4.4	6	0.9	0.342	0.205	0.137	125	3
QCA45C336#020R	C	33	20	6.6	6	1.5	0.245	0.147	0.098	125	1
QCA45D336#020R	D	33	20	6.6	6	0.9	0.342	0.205	0.137	125	3
QCA45E336#020R	E	33	20	6.6	8	0.3	0.791	0.475	0.316	125	1
QCA45C476#020R	C	47	20	9.4	10	1.1	0.286	0.172	0.114	125	1
QCA45D476#020R	D	47	20	9.4	6	0.9	0.342	0.205	0.137	125	3
QCA45E476#020R	E	47	20	9.4	6	0.9	0.373	0.224	0.149	125	1
QCA45V476#020R	V	47	20	9.4	6	0.3	0.926	0.556	0.370	125	1
QCA45D686#020R	D	68	20	13.6	6	0.4	0.512	0.307	0.205	125	3
QCA45E686#020R	E	68	20	13.6	6	0.9	0.373	0.224	0.149	125	3
QCA45E107#020R	E	100	20	20.0	6	0.4	0.559	0.335	0.224	125	3
QCA45H107#020R	H	100	20	20.0	8	0.3	0.645	0.387	0.258	125	1
QCA45V107#020R	V	100	20	20.0	8	0.9	0.408	0.245	0.163	125	1
QCA45D157#020R	D	150	20	30.0	10	0.9	0.342	0.205	0.137	125	1
QCA45B684#050R	B	0.68	50	0.5	4	8	0.097	0.058	0.039	125	1
QCA45C684#050R	C	0.68	50	0.5	4	7	0.113	0.068	0.045	125	1
QCA45B105#050R	B	1	50	0.5	6	7	0.104	0.062	0.042	125	1
QCA45C105#050R	C	1	50	0.5	4	5.5	0.128	0.077	0.051	125	1
QCA45C155#050R	C	1.5	50	0.8	6	4.5	0.141	0.085	0.056	125	1
QCA45D155#050R	D	1.5	50	0.8	6	3.5	0.173	0.104	0.069	125	1
QCA45C225#050R	C	2.2	50	1.1	6	2.5	0.190	0.114	0.076	125	1
QCA45D225#050R	D	2.2	50	1.1	6	2.5	0.205	0.123	0.082	125	1
QCA45C335#050R	C	3.3	50	1.7	6	2.5	0.190	0.114	0.076	125	1
QCA45D335#050R	D	3.3	50	1.7	6	2	0.229	0.137	0.092	125	1
QCA45C475#050R	C	4.7	50	2.4	6	1.4	0.254	0.152	0.102	125	1
QCA45D475#050R	D	4.7	50	2.4	6	1.4	0.274	0.164	0.110	125	1
QCA45E475#050R	E	4.7	50	2.4	4	0.5	0.500	0.300	0.200	125	1
QCA45D685#050R	D	6.8	50	3.4	6	1	0.324	0.194	0.130	125	1
QCA45E685#050R	E	6.8	50	3.4	6	1.5	0.289	0.173	0.116	125	1
QCA45V685#050R	V	6.8	50	3.4	6	0.5	0.548	0.329	0.219	125	1
QCA45D106#050R	D	10	50	5.0	6	0.8	0.362	0.217	0.145	125	3
QCA45E106#050R	E	10	50	5.0	6	1	0.354	0.212	0.142	125	1
QCA45E156#050R	E	15	50	7.5	6	0.6	0.456	0.274	0.182	125	3
QCA45E226#050R	E	22	50	11.0	8	0.9	0.373	0.224	0.149	125	1

Important Note

1. Please do not use multimeter to test tantalum capacitors.
2. Capacitance and DF measured at :100Hz , $U_{-} = 2.2^{+0.1}_{-0.1} V$, $U_{+} = 1.0^{+0.1}_{-0.1} V$, Frequency = 100Hz. Test only applied to series equivalent circuit.
3. Please refer to derating voltage or category voltage if temperature > 85°C
4. The DCL parameter should be read after 5 minutes when it connected to the circuit.
5. For special requirement please consult to our sales.