

EMI Suppression Capacitors

Y2 Class AEC-Q200 type

MEYA-300V Series

MERITEK

FEATURE

- Good Self-Healing Property
- Y2 Class for Interference Suppression
- Metallized Polypropylene Film, Non-Inductive Wound Construction
- Flammability Rating According to UL94-V0
- UL/CUL Safety Approved: Certification No: E197475
- AEC-Q200 Compliant



PART NUMBERING SYSTEM

MEYA 823 K 300V XXX
 (1) (2) (3) (4) (5)



No	Item	Digit	Description	Series Reference
(1)	Meritek Series	MEYA	EMI Suppression Capacitors	Y2 Class, AEC-Q200 type
(2)	Capacitance	823	823: 0.082 μ F	First Two Digits: Significant, Third: Multiplier
(3)	Tolerance	K	K: \pm 10%	-10% ~ +10%,
(4)	Rated Voltage	300V	300VA: 300VAC	Working Voltage, 50/60Hz
(5)	Internal Code	xxx	Pitch or Internal control code	Internal Control or project reference

SPECIFICATIONS

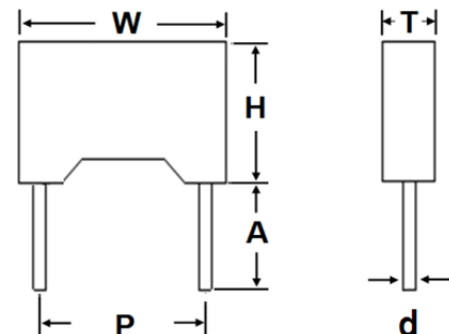
Item	Characteristic	
Operating Temperature Range	-40°C ~ +110°C	
Rated Voltage , Climate Category	300VAC at 50~60Hz,	40/110/56/B
Capacitance, Tolerance	0.001 μ F ~ 0.1 μ F,	\pm 5% (J), \pm 10% (K), \pm 20% (M)
Dissipation Factor (tan δ)	\leq 0.1%	at 1KHz \pm 2%, \leq 1.0V _{RMS}
Insulation resistance	\geq 15,000M Ω	at 100V _{DC} , Change Time: 60s \pm 5s
Withstanding Voltage	Between Terminals	Between Terminals and Case
	2,000VAC for 2sec. or 4,000VDC for 2 sec.	2*Ur+1.5KV _{AC} for 2~5s, Min 2KV _{AC}

DIMENSION

P (mm)	d (mm)	W, H, T (mm)
7.5	0.6	See Table Attached
10.0	0.6	
15.0	0.6	
22.5	0.8	
27.5	0.8	

Note:

1. Standard lead length A: 15mm min.
2. Contact Meritek for other available options for lead forming or assembly



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ELECTRICAL SPECIFICATION – 300VAC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(μ F)	(%)	(V _{AC})	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
MEYA102□300V75	102	0.0010	J,K,M	300	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEYA102□300V10	102	0.0010	J,K,M	300	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEYA102□300V15	102	0.0010	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA152□300V75	152	0.0015	J,K,M	300	10.5	9.0	4.0	7.5	0.6	UL,cUL,ENEC
MEYA152□300V10	152	0.0015	J,K,M	300	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEYA152□300V15	152	0.0015	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA222□300V75	222	0.0022	J,K,M	300	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEYA222□300V10	222	0.0022	J,K,M	300	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEYA222□300V15	222	0.0022	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA272□300V75	272	0.0027	J,K,M	300	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEYA272□300V10	272	0.0027	J,K,M	300	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEYA272□300V15	272	0.0027	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA332□300V75	332	0.0033	J,K,M	300	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEYA332□300V10	332	0.0033	J,K,M	300	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEYA332□300V15	332	0.0033	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA392□300V75	392	0.0039	J,K,M	300	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEYA392□300V10	392	0.0039	J,K,M	300	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEYA392□300V15	392	0.0039	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA472□300V75	472	0.0047	J,K,M	300	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEYA472□300V10	472	0.0047	J,K,M	300	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEYA472□300V15	472	0.0047	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA562□300V75	562	0.0056	J,K,M	300	10.5	11.0	5.0	7.5	0.6	UL,cUL,ENEC
MEYA562□300V10	562	0.0056	J,K,M	300	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEYA562□300V15	562	0.0056	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA682□300V10	682	0.0068	J,K,M	300	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
MEYA682□300V15	682	0.0068	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA822□300V10	822	0.0082	J,K,M	300	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
MEYA822□300V15	822	0.0082	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA103□300V10	103	0.0100	J,K,M	300	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
MEYA103□300V15	103	0.0100	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA123□300V10	123	0.0120	J,K,M	300	13.0	12.0	6.0	10.0	0.6	UL,cUL,ENEC
MEYA123□300V15	123	0.0120	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA153□300V10	153	0.0150	J,K,M	300	13.0	11.0	5.0	10.0	0.6	UL,cUL,ENEC
MEYA153□300V15	153	0.0150	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC
MEYA183□300V15	183	0.0180	J,K,M	300	18.0	11.0	5.0	15.0	0.6	UL,cUL,ENEC

Note: 1. □: denotes tolerance code; 2. **: Contact Meritek for Part Number

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ELECTRICAL SPECIFICATION – 300VAC

Part Number	Cap Code	Cap	Tol	Volt	W	H	T	P	d	Safety
		(μ F)	(%)	(V _{AC})	(mm)	(mm)	(mm)	(mm)	(mm)	Compliance
MEYA223□300V15	223	0.022	J,K,M	300	17.0	11.0	5.5	15.0	0.6	UL,cUL,ENEC
MEYA253□300V15	253	0.025	J,K,M	300	18.0	12.0	6.0	15.0	0.6	UL,cUL,ENEC
MEYA273□300V15A	273	0.027	J,K,M	300	17.0	11.0	5.5	15.0	0.6	UL,cUL,ENEC
MEYA273□300V15B	273	0.027	J,K,M	300	18.0	12.0	6.0	15.0	0.6	UL,cUL,ENEC
MEYA333□300V15	333	0.033	J,K,M	300	18.0	12.0	6.0	15.0	0.6	UL,cUL,ENEC
MEYA473□300V15	473	0.047	J,K,M	300	18.0	13.5	6.0	15.0	0.6	UL,cUL,ENEC
MEYA473□300V22	473	0.047	J,K,M	300	25.0	14.5	6.0	22.5	0.8	UL,cUL,ENEC
MEYA563□300V15	563	0.056	J,K,M	300	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
MEYA683□300V15	683	0.068	J,K,M	300	17.0	15.5	7.5	15.0	0.6	UL,cUL,ENEC
MEYA823□300V15	823	0.082	J,K,M	300	17.0	16.5	9.5	15.0	0.6	UL,cUL,ENEC
MEYA104□300V15	104	0.100	J,K,M	300	17.0	16.5	9.5	15.0	0.6	UL,cUL,ENEC
MEYA104□300V22A	104	0.100	J,K,M	300	26.5	16.5	7.0	22.5	0.8	UL,cUL,ENEC
MEYA104□300V22B	104	0.100	J,K,M	300	26.5	17.0	8.5	22.5	0.8	UL,cUL,ENEC
MEYA104□300V27	104	0.100	J,K,M	300	31.5	16.5	7.5	27.5	0.8	UL,cUL,ENEC

Note: 1. □: denotes tolerance code; 2. **: Contact Meritek for Part Number

RELIABILITY AND TEST CONDITIONS

Item	Test Condition	Requirement
Withstand voltage (Between Terminals)	Apply 2000VAC for 2Sec or 4000VDC for 2Sec	Shall be no abnormality
Withstand voltage (Between terminal and Enclosure)	Apply 2*Ur+1500KVAC for 2 to 5 Sec Min: 2000VAC	Shall be no abnormality
Insulation resistance	Measured at 100V, 60±5Sec	IR: ≥15,000MΩ
Dissipation Factor	Voltage: ≤ 1Vrms; Frequency: 1KHz ±2%	DF: ≤ 0.001 (0.1%)
Tensile Strength of Terminal	Apply 1.0Kg for 10 ± 1 sec. to the terminal in the axial direction and acting in a direction away from the body	Shall be no abnormality
Bending Strength of Terminal	Apply 0.5Kg for 2 cycles. Each cycle includes: 90°once, return to its initial position for 2-3 sec and then to the opposite direction once	Shall be no abnormality
Vibration Resistance	Frequency change: 10~55~10Hz Vibration distance: 1.5mm, Direction: X, Y, Z Time : 2+1/-0hrs each direction	Appearance : No mechanical Damage Connection : Shall be no short or open
Solder-ability	Solder temperature: 235±5°C, Immersion time: 2±0.5sec	More than 90% of circumferential surface of lead wire shall be covered with new solder
Damp Heat	Temperature: 40°C ± 2°C, Relative Humidity: 90 ~ 95% Times: 56 days; After test, let rest for 1.5±0.5hr at ordinary condition before making measurements.	Appearance : No Visible Damage ΔC/C: ≤ ±5% of the value before test DF: ≤ 0.002 (0.2%) Max at 1KHz IR: ≥ 50% of the rated value

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RELIABILTY AND TEST CONDITIONS

Item	Test Condition	Requirement																	
Dry Heat Resistance	Temperature: 110°C ± 2°C, Time: 16 +1/-0Hrs	Appearance : No Visible Damage $\Delta C/C: \leq \pm 5\%$ of the value before test DF: ≤ 0.002 (0.2%) Max at 1KHz IR: $\geq 50\%$ of the rated value																	
Cold Resistance	Temperature: -40±3°C, Time: 2±1Hrs																		
Temperature Cycle	Test Temperature Cycle: Total 5 cycles. Each cycle includes <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Cycle</th> <th>Temperature</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>+20±2°C</td> <td>3 min</td> </tr> <tr> <td>2</td> <td>-40±3°C</td> <td>30min</td> </tr> <tr> <td>3</td> <td>+20±2°C</td> <td>3 min</td> </tr> <tr> <td>4</td> <td>+110±3°C</td> <td>30min</td> </tr> <tr> <td>5</td> <td>+20±2°C</td> <td>3 min</td> </tr> </tbody> </table> After test, let rest for 1.5±0.5hr at ordinary condition before making measurements.		Cycle	Temperature	Time	1	+20±2°C	3 min	2	-40±3°C	30min	3	+20±2°C	3 min	4	+110±3°C	30min	5	+20±2°C
Cycle	Temperature	Time																	
1	+20±2°C	3 min																	
2	-40±3°C	30min																	
3	+20±2°C	3 min																	
4	+110±3°C	30min																	
5	+20±2°C	3 min																	
Endurance	Duration: 1000Hrs, Temperature: +110± 2°C Voltage: 1.7 times rated voltage. Once every hour the voltage increased to 1KVrms. For 0.1sec. The test voltage is applied to each capacitor individually through a Resistor of 47Ω±5%.	Appearance : No Visible Damage $\Delta C/C: \leq \pm 10\%$ of the value before test DF: ≤ 0.008 (0.8%) Max at 1KHz IR: $\geq 50\%$ of the rated value																	
Resistance to Soldering Heat	Preheat Temp. and Duration: 100~120°C Preheat Duration: 60Sec max Temperature Increase by 3°C/Sec max Soldering Temperature: +260± 5°C Immersion Duration: 5±1Sec Immersion Depth: 4±0.8mm from roots	Appearance : No Visible Damage $\Delta C/C: \leq \pm 3\%$ of the value before test DF: ≤ 0.002 (0.2%) Max at 1KHz IR: $\geq 50\%$ of the rated value Connection: Shall be Stable																	
Moisture Resistant Loading	Temperature: +40±2°C; Humidity: 87%~93% R.H.; Voltage: rated voltage; Duration: 500Hrs; After test, let rest for 1.5±0.5hr at ordinary condition before making measurements.	Appearance : No Visible Damage $\Delta C/C: \leq \pm 5\%$ of the value before test DF: ≤ 0.002 (0.2%) Max at 1KHz IR: $\geq 50\%$ of the rated value																	

Notes:

1. Ambient Temp: 15°C to 35°C, Relative Humidity (R.H.): 45% to 75%, Air Pressure: 86kpa to 106kpa
2. A storage needs to be kept indoors at -10~+40°C and relative humidity of under 75% without any sudden temperature changes, direct sunlight and corrosive gas around
3. Do not apply and exceeding vibration, shock (dropping) and pressure

*Specifications subject to change without notice.