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SERIES	DESCRIPTION
158X	158X: +100°C, Metallized, Type X2 Suppressor Capacitors
MKP	MKP: +110°C, Class X2
MPX	MPX/MPXB: +85°C, 85/85 THB X2 Capacitor
MXH	MXH: +85°C, X2, EMI, RFI Suppression Capacitor
MYH	MYH: +85°C, Y2, EMI, RFI Suppression Capacitor
MXT	MXT: +85°C, X2, EMI, RFI Suppression Capacitor
Q-QRL	Q/QRL: +85°C, Quencharc ® Arc Suppression

This is the table of contents for a custom generated catalog and may not contain all of the products available. Please refer to our website for our full parametric search of products.

158X Series Type X2 Suppressor Capacitors

Metallized Polyester / Radial Leads



- Radial Leads in Two Lengths
- UL and CSA Approved
- Flame Retardant Case Meets UL94V-0
- Potting End Fill Meets UL94V-0
- Used in applications where damage to the capacitor will not lead to the danger of electrical shock
- Lead Material Tinned Copper Clad Steel

GENERAL SPECIFICATIONS

Operating Temperature:
-40 °C to +100 °C
Voltage Range:
275/250 VAC, 60 Hz
Capacitance Range:
0.01 µF to 2.2 µF
Capacitance Tolerance:
±20% (Standard)
±10% (Special)
Dissipation Factor (DF)
tgδ 0.01 Max at 1,000 ± 100kHz

RoHS Compliant

Insulation Resistance (IR)
(@ 500 VDC and 20 °C)
Terminal to Terminal:
≤0.33µF 15,000 MΩ min
≥0.47µF 5,000 MΩ x µF min
Both Terminals to Body:
100,000 MΩ min

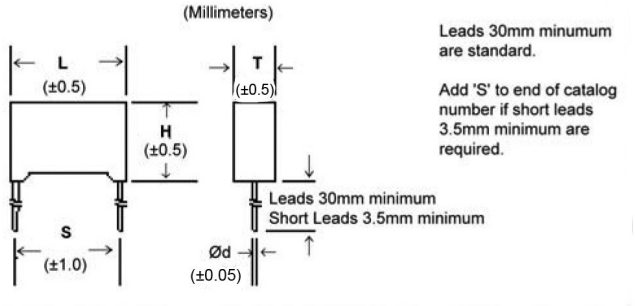
Maximum Pulse Rise Time

µF	V/µs	µF	V/µs
.010	2800	0.22	1200
.022	2400	0.47	1000
.033	2400	0.68	1000
.047	2000	1.00	800
.068	2000	1.50	800
.100	1600	2.20	600

Agency Approvals

Safety Agency	Standard	File Number
UL	UL-60384-14	E171988
CSA	C22 2, No. 1-98/No.8 (250VAC)	1572961
VDE	EN 60384-14	40018720
SEMKO	EN 60384-14	1112778
NEMKO	EN 60384-14	P10213462

Outline Dimensions



Ratings

Catalog Part Number	Cap (µF)	Inches L Length	Inches T Thickness	Inches H Height	Inches S Spacing	Inches Ød	Millimeters L Length	Millimeters T Thickness	Millimeters H Height	Millimeters S Spacing	Millimeters Ød
158X103	0.010	0.669	0.197	0.472	0.591	0.024	17.0	5.0	12.0	15.0	0.6
158X123	0.012	0.669	0.197	0.472	0.591	0.024	17.0	5.0	12.0	15.0	0.6
158X153	0.015	0.669	0.197	0.472	0.591	0.024	17.0	5.0	12.0	15.0	0.6
158X183	0.018	0.669	0.197	0.472	0.591	0.024	17.0	5.0	12.0	15.0	0.6
158X223	0.022	0.669	0.197	0.472	0.591	0.024	17.0	5.0	12.0	15.0	0.6
158X273	0.027	0.669	0.197	0.472	0.591	0.024	17.0	5.0	12.0	15.0	0.6
158X333	0.033	0.669	0.197	0.472	0.591	0.024	17.0	5.0	12.0	15.0	0.6
158X393	0.039	0.669	0.217	0.492	0.591	0.031	17.0	5.5	12.5	15.0	0.8
158X473	0.047	0.669	0.217	0.492	0.591	0.031	17.0	5.5	12.5	15.0	0.8
158X563	0.056	0.669	0.256	0.531	0.591	0.031	17.0	6.5	13.5	15.0	0.8
158X683	0.068	0.669	0.256	0.531	0.591	0.031	17.0	6.5	13.5	15.0	0.8
158X823	0.082	0.669	0.256	0.591	0.591	0.031	17.0	6.5	15.0	15.0	0.8
158X104	0.100	0.669	0.315	0.591	0.591	0.031	17.0	8.0	15.0	15.0	0.8
158X124	0.120	0.984	0.256	0.630	0.886	0.031	25.0	6.5	16.0	22.5	0.8
158X154	0.150	0.984	0.256	0.630	0.886	0.031	25.0	6.5	16.0	22.5	0.8
158X184	0.180	0.984	0.315	0.689	0.886	0.031	25.0	8.0	17.5	22.5	0.8
158X224	0.220	0.984	0.315	0.689	0.886	0.031	25.0	8.0	17.5	22.5	0.8
158X274	0.270	1.181	0.354	0.669	1.083	0.031	30.0	9.0	17.0	27.5	0.8
158X334	0.330	0.984	0.394	0.768	0.886	0.031	25.0	10.0	19.5	22.5	0.8
158X394	0.390	1.181	0.433	0.866	1.083	0.031	30.0	11.0	22.0	27.5	0.8
158X474	0.470	1.181	0.433	0.866	1.083	0.031	30.0	11.0	22.0	27.5	0.8
158X564	0.560	1.181	0.531	0.965	1.083	0.031	30.0	13.5	24.5	27.5	0.8
158X684	0.680	1.181	0.531	0.965	1.083	0.031	30.0	13.5	24.5	27.5	0.8
158X824	0.820	1.201	0.630	1.102	1.083	0.039	30.5	16.0	28.0	27.5	1.0
158X105	1.000	1.201	0.630	1.102	1.083	0.039	30.5	16.0	28.0	27.5	1.0
158X125	1.200	1.614	0.610	1.102	1.476	0.039	41.0	15.5	28.0	37.5	1.0
158X155	1.500	1.614	0.610	1.102	1.476	0.039	41.0	15.5	28.0	37.5	1.0
158X185	1.800	1.614	0.689	1.280	1.476	0.039	41.0	17.5	32.5	37.5	1.0
158X225	2.200	1.614	0.689	1.280	1.476	0.039	41.0	17.5	32.5	37.5	1.0

NOTE: If ±10% tolerance is required, add 'K' to end of Catalog Number

NOTE: Parts are normally supplied with leads 30mm minimum

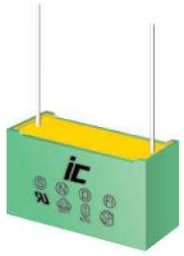
To order short leads, 3.5mm minimum length, add 'S' to end of Catalog Part Number.

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MKP

Boxed Metallized Polypropylene Film Capacitors

Class X2 EMI/RFI



FEATURES	Small Size – Safety Agency Approved – Metalized Polypropylene
APPLICATIONS	EMI filters – Across the Line (Not for use in Series with Mains; See MPXB)

Operating Temperature Range	-40°C to +110°C			
Capacitance Tolerance	±10% at 1 kHz, 20°C			
AC voltage (50/60 Hz)	**UL/CSA**	**ENEC**	**CQC**	
	250/275/310	250/275/310	310	
Dissipation Factor at 1 kHz and 20°C	Tan δ			
	.1% Max			
Insulation Resistance @20°C (<70% RH)for 1 minute at 100VDC applied	**Capacitance**	**Terminal to Terminal**	**Terminal to Case**	
	≤0.33uF	15000 MΩ	>30000 MΩ at 100VDC >5000 MΩ at 500VDC	
	>0.33uF	5000 MΩxuF	>30000 MΩ at 100VDC >5000 MΩ at 500VDC	
Self Inductance	≤1 nano-Henry per mm of lead spacing			
Dielectric Strength	**Terminal to Terminal**	1333VDC (4.3*310) VDC applied for 60 seconds Cut-off current: 10mAdc Current limiting resistance: 1Ω/V		
	Terminal to case	2050VDC (50/60 Hz) applied between the terminals and case for 60 Seconds and 20°C		
Life Expectancy	**1000 hours at 110°C at 125% of rated voltage with once every hour the voltage is increased to 1000 VAC for 0.1 seconds**			
	Capacitance change	≤10% of initially measured value		
	Dissipation Factor	≤0.8% at 1kHz		
	Insulation Resistance	≥50% of initially specified value (T-T)		
Humidity test	**56 days at 90 to 95% RH, 40C**			
	Capacitance change	≤10% of initially measured value		
	Dissipation Factor	≤0.8% at 1kHz		
	Insulation Resistance	≥50% of initially specified value (T-T)		
Impulse voltage (24 pulses)	C≤ 1uF Vp=2.5kVDC C> 1uF Vp=2.5kV √C			
Capacitance temperature coefficient	-200ppm/°C, ±100ppm/°C			
Construction	Metallized Polypropylene film			
Electrodes	Vacuum deposited Metal layers			
Coating	Flame retardant Solvent resistant plastic case with epoxy end fill (UL94V-0)			
Lead terminations	tinned copper clad steel leads			

Special Order Options

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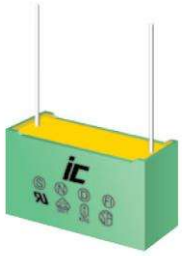
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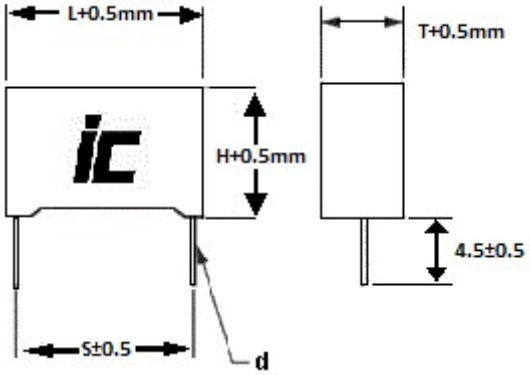
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MKP

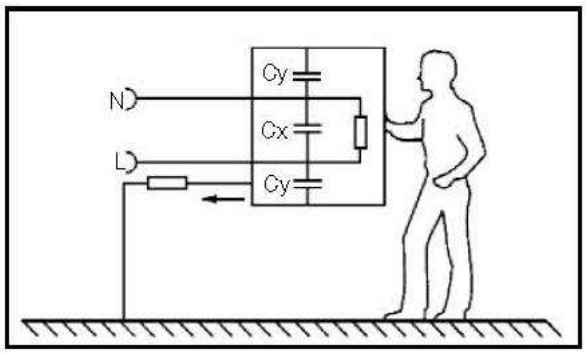
Boxed Metallized Polypropylene Film Capacitors

Class X2 EMI/RFI





All Dimensions in (mm)
***17mm lead length available upon request**



X capacitors are used to suppress electrical noise by reducing the input impedance of the device incorporating the capacitor.
X capacitors are connected across the supply line where failure of the capacitor will not result in personal exposure to electrical shock.
X2 capacitors are to be used in applications where the peak voltage is ≤1200V.

Safety agency	Standard	Voltage	Class	Certificate number
UL/CSA	ANSI/UL 60384-14	250/275/310	FOWX2	E317135
	CSA E60384-1	250/275/310	FOWX8	1041922
VDE/ENEC	DIN EN60384-14 (VDE 0565-1-1):2014-04; EN60384-14:2013-08 DIN EN60384-14/A1 (VDE 0565-1-1/A1):2017-04; EN60384-14:2013/A1:2016 IEC 60384-14:2013 IEC 60384-14:2013/AMD1:2016	250/275/310	X2	40040758
CQC	GB/T14472-1998	310	X2	CQC14001115428

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MKP

Class X2

Capacitance (µF)	IC PART NUMBER	dv/dt (v/µ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
0.0047	472MKP275KC	500	10x8x4	7.5	0.6
0.0047	472MKP275K	400	13x10x5	10	0.6
0.0056	562MKP275KC	500	10x8x4	7.5	0.6
0.0056	562MKP275KD	400	13x9x4	10	0.6
0.0068	682MKP275KC	500	10x8x4	7.5	0.6
0.0068	682MKP275K	400	13x9x4	10	0.6
0.0082	822MKP275KC	500	10x8x4	7.5	0.6
0.0082	822MKP275KD	400	13x9x4	10	0.6
0.01	103MKP275KC	500	10x8x4	7.5	0.6
0.01	103MKP275K	400	13x9x4	10	0.6
0.01	103MKP275KE	400	18x8x4	15	0.6
0.015	153MKP275KC	500	10x8x4	7.5	0.6
0.015	153MKP275K	400	13x9x4	10	0.6
0.015	153MKP275KE	400	18x8x4	15	0.6
0.022	223MKP275KCG5	500	10x8x4	7.5	0.6
0.022	223MKP275KC	500	10x9x4	7.5	0.6
0.022	223MKP275K	400	13x9x4	10	0.6
0.022	223MKP275KB	400	18x9x4	15	0.6
0.033	333MKP275KCG4	500	10x10x5	7.5	0.6
0.033	333MKP275KC	500	10x9x5	7.5	0.6
0.033	333MKP275K	400	13x9x4	10	0.6
0.033	333MKP275KE	400	18x9x14	15	0.8
0.047	473MKP275KC	500	10x10x5	7.5	0.6
0.047	473MKP275KD	400	13x9x4	10	0.6
0.047	473MKP275K	400	18x9x4	15	0.6
0.056	563MKP275KC	500	10x11x5	7.5	0.6
0.056	563MKP275KD	400	13x9.5x4.5	10	0.6
0.056	563MKP275KE	400	18x9x4	15	0.6
0.068	683MKP275KC	500	10x12x6	7.5	0.6
0.068	683MKP275KD	400	13x10x5	10	0.6
0.068	683MKP275K	400	18x10x4	15	0.6
0.082	823MKP275KC	500	10x12x6	7.5	0.6
0.082	823MKP275KD	400	13x11x5	10	0.6
0.082	823MKP275KE	400	18x10x5	15	0.8
0.1	104MKP275KC	500	10x13x7	7.5	0.6
0.1	104MKP275KD	400	13x11x5	10	0.6
0.1	104MKP275K	400	18x11x5	15	0.8
0.1	104MKP275KG5	400	18x10.5x5	15	0.8
0.12	124MKP275KD	400	13x12x6	10	0.6
0.12	124MKP275KE	400	18x10x5	15	0.8
0.15	154MKP275KD	400	13x12x7	10	0.6
0.15	154MKP275KA	350	15x11.5x6	12.5	0.8
0.15	154MKP275KE	400	18x10.5x5	15	0.8
0.15	154MKP275K	180	26x14.5x6	22.5	0.8
0.22	224MKP275KD	400	13x14x8	10	0.6
0.22	224MKP275KA	350	15x12.5x7	12.5	0.8
0.22	224MKP275KBG4	400	18x13x7	15	0.8
0.22	224MKP275KB	400	18x11.5x6	15	0.8

Capacitance (µF)	IC PART NUMBER	dv/dt (v/µ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
0.22	224MKP275K	180	26x14.5x6	22.5	0.8
0.33	334MKP275KA	350	15x14x8.5	12.5	0.8
0.33	334MKP275KE	400	18x13x7	15	0.8
0.33	334MKP275K	180	26x12x6	22.5	0.8
0.39	394MKP275KA	350	15x15x9	12.5	0.8
0.39	394MKP275KE	400	18x13.5x7.5	15	0.8
0.39	394MKP275KG	180	26x12x6	22.5	0.8
0.47	474MKP275KA	350	15x16x10	12.5	0.8
0.47	474MKP275KE	400	18x13.2x7.2	15	0.8
0.47	474MKP275KBG5	180	26x14.2x6	22.5	0.8
0.47	474MKP275KB	180	26x16.5x7.5	22.5	0.8
0.47	474MKP275K	120	31x13.5x6	27.5	0.8
0.47	474MKP275KG	120	32x18x9	27.5	0.8
0.56	4564MKP275KE	400	18x15x9	15	0.8
0.56	564MKP275KG	180	26x14x7	22.5	0.8
0.56	564MKP275KH	120	31x14x6.5	27.5	0.8
0.68	684MKP275KE	400	18x16x10	15	0.8
0.68	684MKP275KG	180	26x17x8	22.5	0.8
0.68	684MKP275K	120	31x15.5x6.5	27.5	0.8
0.82	824MKP275KE	400	18x17.5x10	15	0.8
0.82	824MKP275KG	180	26x16x8	22.5	0.8
0.82	824MKP275KH	120	31x16x7.5	27.5	0.8
1	105MKP275KE	400	18x18.5x11	15	0.8
1	105MKP275KG	180	26x17x9	22.5	0.8
1	105MKP275KGG4	180	26x19x10	22.5	0.8
1	105MKP275K	120	31x17x8	27.5	0.8
1.2	125MKP275KG	180	26x19.5x9	22.5	0.8
1.2	125MKP275KH	120	31x17.5x9	27.5	0.8
1.5	155MKP275KG	180	26x21x10	22.5	0.8
1.5	155MKP275K	120	31x18.5x10	27.5	0.8
1.8	185MKP275KG	180	26x23x12.5	22.5	0.8
1.8	185MKP275KH	120	31x20.5x12	27.5	0.8
2.2	225MKP275KGE	180	26x22x15	22.5	0.8
2.2	225MKP275KG	180	26x24x13.5	22.5	0.8
2.2	225MKP275KG5	120	31x22x13	27.5	0.8
2.2	225MKP275K	120	31x26x18	27.5	0.8
3.3	335MKP275KHF	120	31x26x17.5	27.5	0.8
3.3	335MKP275KH	120	31x29x15.5	27.5	0.8
3.3	335MKP275KJ	100	41.5x26x14.5	37.5	1
3.9	395MKP275KH	120	31x28x19	27.5	0.8
4.7	475MKP275KH	120	31x30.5x20	27.5	0.8
4.7	475MKP275KHG	120	31x32.5x19	27.5	0.8
4.7	475MKP275KJ	100	41.5x30x17	37.5	1
5.6	565MKP275KH	120	31x34.5x21	27.5	0.8
6.8	685MKP275KJ	100	41.5x35.5x22.5	37.5	1
8.2	825MKP275KJ	100	41.5x38x25	37.5	1
10	106MKP275KJ	100	41.5x41x27.5	37.5	1

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MPX

Boxed Metallized Polypropylene Film Capacitors

CLASS X2 - 85/85 - THB



FEATURES	85/85 THB – Safety Agency Approved Metalized Polypropylene
APPLICATIONS	**MPX** for X2, Across the Line **MPXB** for In Series with Mains EMI Filters – Outdoor Applications

Operating Temperature Range	-40°C to +110°C			
Capacitance Tolerance	±10% or ±20% at 1 kHz, 25°C			
AC voltage (50/60 Hz)	**UL/CSA**	**ENEC**	**CQC**	
	275/305	275/305	305	
Dissipation Factor at 1 kHz and 25°C	**Tan δ**			
	0.01uF≤Cn≤1.0 uF	≤0.1%		
	1.0uF<Cn≤10.0 uF	≤0.3%		
	Cn>10.0 uF	≤0.4%		
Insulation Resistance @25°C (<70% RH) for 1 minute at 100VDC applied	**Capacitance**	**Terminal to Terminal**	**Terminal to Case**	
	≤0.33uF	15,000 MΩ	>30000 MΩ at 100VDC >5000 MΩ at 500VDC	
	>0.33uF	5,000 MΩxuF	>30000 MΩ at 100VDC >5000 MΩ at 500VDC	
Self-Inductance	≤1 nano-Henry per mm of lead spacing and lead length			
Dielectric Strength	**Terminal to Terminal**	1312 VDC applied for 60 seconds or 2000 VDC applied for 2 seconds Cut-off current: 2A ac or 10mAdc Current limiting resistance: 1Ω/V		
	Terminal to case	2050VDC (50/60 Hz) applied between the terminals and case for 60 Seconds and 25°C		
Life Expectancy	**100,000 hours at Un @Hot-Spot temperature T=85°C**			
	Capacitance change	≤10% of initially measured value		
	Dissipation Factor	≤1.0% at 1kHz		
	Insulation Resistance	≥100% of initially specified value (T-T) ≥3000 MΩ (Terminal to case)		
Humidity test	Temperature: 85°C + 2°C; Humidity: 85% + 2% Loading Voltage: 240Vac (50Hz/60Hz) Duration: 1000 hours			
	Capacitance change	≤10% of initially measured value		
	Dissipation Factor	≤1.0% at 1kHz		
	Insulation Resistance	≥50% of initially specified value (T-T) ≥15000 MΩ (Terminal to case)		
Impulse voltage (24 pulses)	C≤ 1uF Vp=2.5kVDC C> 1uF Vp=2.5kV √C			
Capacitance temperature coefficient	-200ppm/°C, ±100ppm/°C			
Construction	Metallized Polypropylene film			
Electrodes	Vacuum deposited Metal layers			
Coating	Flame retardant Solvent resistant plastic case with epoxy end fill (UL94V-0)			
Lead terminations	Tinned copper clad steel leads			

Special Order Options

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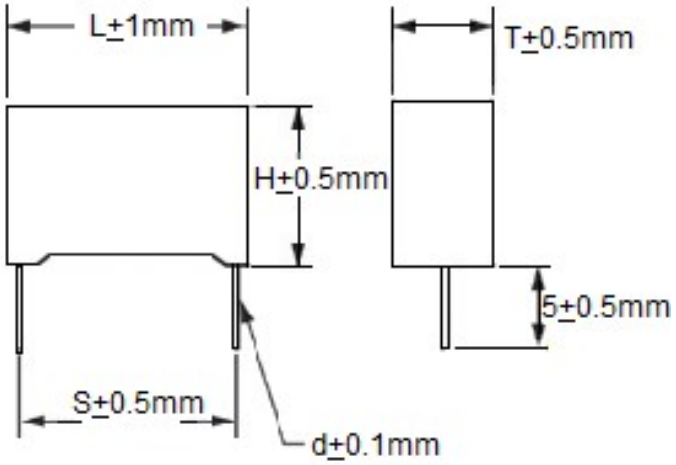
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MPX

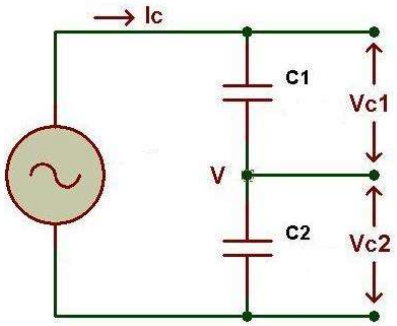
Boxed Metallized Polypropylene Film Capacitors

CLASS X2 - 85/85 - THB



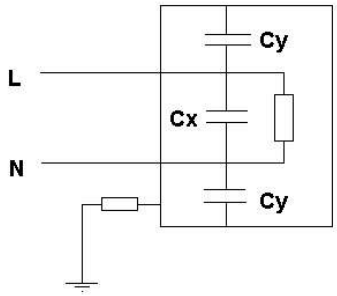


All dimensions in (mm)
***17mm lead length available upon request**



MPXB Series
In Series with Mains; 85/85 THB

EMI Suppression



MPX Series
Standard 85/85 X2 circuit

Safety agency	Standard	Voltage	Class	Certificate number
UL/CSA	UL 60384-14(.0047 to 46uF)	275/305	FOWX2*/FOWX8*	E317135
ENEC (VDE)	DIN EN60384-14 (VDE 0565-1-1):2014-04; EN60384-14:2013-08 DIN EN60384-14/A1 (VDE 0565-1-1/A1):2017-04; EN60384-14:2013/A1:2016 IEC 60384-14:2013 IEC 60384-14:2013/AMD1:2016	275/305	X2	40046436
		275/305		40046436
CQC	GB/T14472-1998	275	X2	
	GB/T14472-1998 (.0047 to 46uF)	305		

*Antenna coupling, Line bypass, across the line
^Electromagnetic interference filter

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MPX

Class X2 85/85 THB

Capacitance (µF)	IC PART NUMBER	dv/dt (v/µ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
0.01	MPX103K305D	500	13x11x5	10	0.6
0.022	MPX223K305D	500	13x11x5	10	0.6
0.033	MPX333K305D	500	13x11x5	10	0.6
0.047	MPX473K305D	500	13x12x6	10	0.6
0.047	MPX473K305E	400	18x12x6	15	0.6
0.068	MPX683K305D	500	13x12x6	10	0.6
0.068	MPX683K305E	400	18x12x6	15	0.6
0.082	MPX823K305D	500	13x12x6	10	0.6
0.082	MPX823K305E	400	18x12x6	15	0.6
0.1	MPX104K305D	500	13x12x6	10	0.6
0.1	MPX104K305E	400	18x12x6	15	0.6
0.15	MPX154K305D	500	13x14x8	10	0.6
0.15	MPX154K305E	400	18x12x6	15	0.6
0.22	MPX224K305E	400	18x14x8	15	0.8
0.22	MPX224K305G	200	26x16.5x7	22.5	0.8
0.27	MPX274K305E	400	18x14.5x8.5	15	0.8
0.27	MPX274K305G	200	26x16.5x7	22.5	0.8
0.33	MPX334K305E	400	18x16x10	15	0.8
0.33	MPX334K305G	200	26x17x8.5	22.5	0.8
0.47	MPX474K305E	400	18x19x11	15	0.8
0.47	MPX474K305G	200	26x19x10	22.5	0.8
0.56	MPX564K305E	400	18x19x11	15	0.8
0.56	MPX564K305G	200	26x19x10	22.5	0.8
0.68	MPX684K305E	400	18x22x12.5	15	0.8
0.68	MPX684K305G	200	26x20x11	22.5	0.8
0.82	MPX824K305E	400	18x22x12.5	15	0.8
0.82	MPX824K305G	200	26x20x11	22.5	0.8

Capacitance (µF)	IC PART NUMBER	dv/dt (v/µ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
1	MPX105K305G	200	26x22x12	22.5	0.8
1	MPX105K305H	150	32x20x11	27.5	0.8
1.2	MPX125K305G	200	26x23x13	22.5	0.8
1.2	MPX125K305H	150	32x22x13	27.5	0.8
1.5	MPX155K305G	200	26x24x14	22.5	0.8
1.5	MPX155K305H	130	32x22x13	27.5	0.8
2.2	MPX225K305H	150	32x28x14	27.5	0.8
3.3	MPX335K305H	150	32x33x18	27.5	0.8
4.7	MPX475K305H	150	32x37x22	27.5	0.8
4.7	MPX475K305N	100	42.5x32x19	37.5	1
6.8	MPX685K305N	100	42.5x44x24	37.5	1
10	MPX106K305N	100	42.5x45x30	37.5	1
12	MPX126K305N	100	42.5x45x30	37.5	1
12	MPX126K305R	100	57.5x45x30	52.5	1.2
15	MPX156K305N	100	42.5x45x30	37.5	1
15	MPX156K305R	100	57.5x45x30	52.5	1.2
18	MPX186K305R	100	57.5x45x30	52.5	1.2
20	MPX206K305R	100	57.5x45x30	52.5	1.2
22	MPX226K305R	100	57.5x45x30	52.5	1.2
25	MPX256K305R	100	57.5x45x30	52.5	1.2
30	MPX306K305R	100	57.5x45x30	52.5	1.2
33	MPX336K305R	100	57.5x50x35	52.5	1.2
39	MPX396K305R	100	57.5x50x35	52.5	1.2
40	MPX406K305R	100	57.5x50x35	52.5	1.2
45	MPX456K305R	100	57.5x53x50	52.5	1.2
45	MPX456K305RB	100	57.5x60x45	52.5	1.2

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MPXB

Capacitive Divider 85/85 THB X2

Capacitance (µF)	IC PART NUMBER	dv/dt (v/µ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
0.1	MPXB104K305E	400	18x13.5x7.5	15	0.8
0.15	MPXB154K305E	400	18x14.5x8.5	15	0.8
0.22	MPXB224K305E	400	18x16x10	15	0.8
0.33	MPXB334K305E	400	18x19x11	15	0.8
0.47	MPXB474K305G	200	26x20x11	22.5	0.8
0.56	MPXB564K305G	200	26x20x11	22.5	0.8
0.68	MPXB684K305G	200	26x22x12	22.5	0.8
0.82	MPXB824K305G	200	26x22x12	22.5	0.8

Capacitance (µF)	IC PART NUMBER	dv/dt (v/µ sec.)	Dims LxHxT (mm)	S (MM)	d (MM)
1	MPXB105K305G	200	26x23x13	22.5	0.8
1	MPXB105K305H	100	32x22x13	27.5	0.8
1.2	MPXB125K305H	100	32x28x14	27.5	0.8
1.5	MPXB155K305H	100	32x28x14	27.5	0.8
1.8	MPXB185K305H	100	32x33x18	27.5	0.8
2	MPXB205K305H	100	32x33x18	27.5	0.8
2.2	MPXB225K305H	100	32x33x18	27.5	0.8

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TYPE MXH, X2, EMI, RFI Suppression Capacitors, Harsh Environment

THB 2,000 Hr @ 85 °C, 85% RH, and Vr, AEC-Q200



The MXH series is constructed of Metallized Polypropylene Film encapsulated with self-extinguishing resin in plastic box of material meeting the UL 94V-0 requirements. The series is suitable for harsh environment conditions and is compliant with AEC-Q200 requirements. Applications include “across the line” class X2 and EMI, RFI suppression.

Highlights

- THB 2,000 Hr @ 85˚C, 85% RH, and Vr
- Automotive Grade (AEC-Q200)
- High stability of capacitance
- High operating temperature: 110 °C
- Self-healing property
- Flame-retardant plastic case and resin
- Suitable for harsh environmental conditions

Specifications

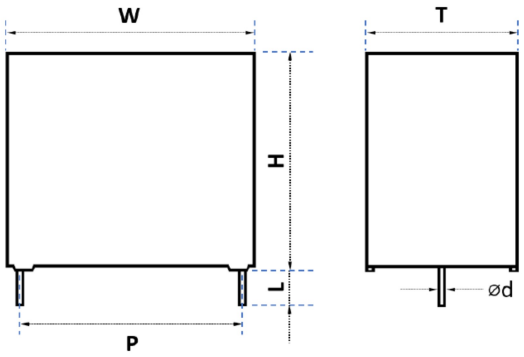
Capacitance Range	0.1 µF to 15 µF
Capacitance Tolerance	±10 % (±20% optional)
Rated Voltage	305 Vac, 630 Vdc
Operating Temperature Range	–40 ºC to +110 ºC (+85 °C to 110 °C, voltage derating factor of 1.35% per Deg. C)
Life Expectancy	100,000h at rated voltage and hot spot temperature ≤85 °C
Voltage Between Terminals UTT	DC Voltage: $4.3U_R$ for 60s or $\sqrt{2}(2U_R + 1000Vac)$ VDC for 2s, charge current must be 1A max. Withstanding DC voltage (cut-off current 10mA) Rise time 100V/s
Voltage Between Terminals and Case UTC	$2U_R$ + 1500Vac, 60s at 20 °C
Dissipation Factor	0.001 @ 1KHz @ 20 ˚C
Insulation Resistance	C ≤0.33µF at 100V; 1 min. > 15000 MΩ C >0.33µF at 100V; 1 min. > 5000 MΩ*µF
IEC Climatic Category	40/110/56 IEC60068-1
THB Rating	+85ºC / 85% RH @ rated voltage for 2,000hrs +24/-0 Capacitance Change Rate: (ΔC/C): ≤±10% DF Change (Δtgδ): ≤240*10-4 at 10 KHz (C ≤ 1µF) DF Change (Δtgδ): ≤150*10-4 at 1 KHz (C > 1µF) IR: ≥ 50% of initial limit
Damp Heat, Steady State **(Reference: IEC 60384-14; 2013/AMD1:2016)**	+40ºC / 93% RH @ rated voltage for 1,344 hrs +24/-0 Capacitance Change Rate: (ΔC/C): ≤±5% DF Change (Δtgδ): ≤80*10-4 at 10 KHz (C ≤ 1µF) DF Change (Δtgδ): ≤50*10-4 at 1 KHz (C > 1µF) IR: ≥ 50% of initial limit
Storage Conditions	-10 °C to +40 °C ≤24 months with RH ≤70%
RoHS Compliant	

Safety Agency	Standard	File Number
UL	UL 60384-14 CSA-E60384-14	E171988
VDE	IEC 60384-14:2013 IEC 60384-14:2013/AMD1:2016	40055249
CQC	IEC 60384-14:2013/ AMD1:2016	CQC23001381667

Construction Details	
Case Material	Plastic UL 94V-0
Resin Material	Epoxy Resin UL 94V-0
Terminal Material	Copper Clad Steel or Tinned Copper Wires

THB 2,000 Hr @ 85 °C, 85% RH, and Vr, AEC-Q200

Dimensions



2 pins

Size Code Table

Size	Dimensions (mm)						Pitch (mm)		Lead Wire (mm)		Lead Length (mm)
Code	W	Tol. ±	H	Tol. ±	T	Tol. ±	P	Tol. ±	Ød	Tol. ±	Tol ±0.05
E10	18	0.5	11	0.5	5	0.5	15	0.5	0.6	0.05	5
E11	18	0.5	12	0.5	6	0.5	15	0.5	0.6	0.05	5
E13	18	0.5	13.5	0.5	7.5	0.5	15	0.5	0.8	0.05	5
E14	18	0.5	14.5	0.5	8.5	0.5	15	0.5	0.8	0.05	5
E20	18	0.5	16	0.5	10	0.5	15	0.5	0.8	0.05	5
E21	18	0.5	19	0.5	11	0.5	15	0.5	0.8	0.05	5
G11	26	0.5	16.5	0.5	7	0.5	22.5	0.5	0.8	0.05	5
G20	26	0.5	19	0.5	10	0.5	22.5	0.5	0.8	0.05	5
G22	26	0.5	22	0.5	12	0.5	22.5	0.5	0.8	0.05	5
G23	26	0.5	23	0.5	13	0.5	22.5	0.5	0.8	0.05	5
G24	26	0.5	29.5	0.5	14.5	0.5	22.5	0.5	0.8	0.05	5
H11	32	0.8	18	0.8	9	0.8	27.5	0.5	0.8	0.05	5
H20	32	0.8	20	0.8	11	0.8	27.5	0.5	0.8	0.05	5
H22	32	0.8	24.5	0.8	13	0.8	27.5	0.5	0.8	0.05	5
H23	32	0.8	24	0.8	14	0.8	27.5	0.5	0.8	0.05	5
H27	32	0.8	28	0.8	18	0.8	27.5	0.5	0.8	0.05	5
H28	32	0.8	33	0.8	18	0.8	27.5	0.5	0.8	0.05	5
H30	32	0.8	37	0.8	22	0.8	27.5	0.5	0.8	0.05	5
N31	42	1	37	1	22	1	37.5	0.5	1	0.05	5
N30	42	1	40	1	20	1	37.5	0.5	1	0.05	5
N32	42	1	44	1	24	1	37.5	0.5	1	0.05	5

Part Numbering System

MXH Series	104 Capacitance	K Tolerance	305 Voltage	E10 Case
MXH	EIA Cap Code 104 = 0.1 µF 125 = 1.2 µF 156 = 15 µF	K = ±10% Standard M = ±20% Optional	305 = 305 Vac	See Size CodeTable

THB 2,000 Hr @ 85 °C, 85% RH, and Vr, AEC-Q200

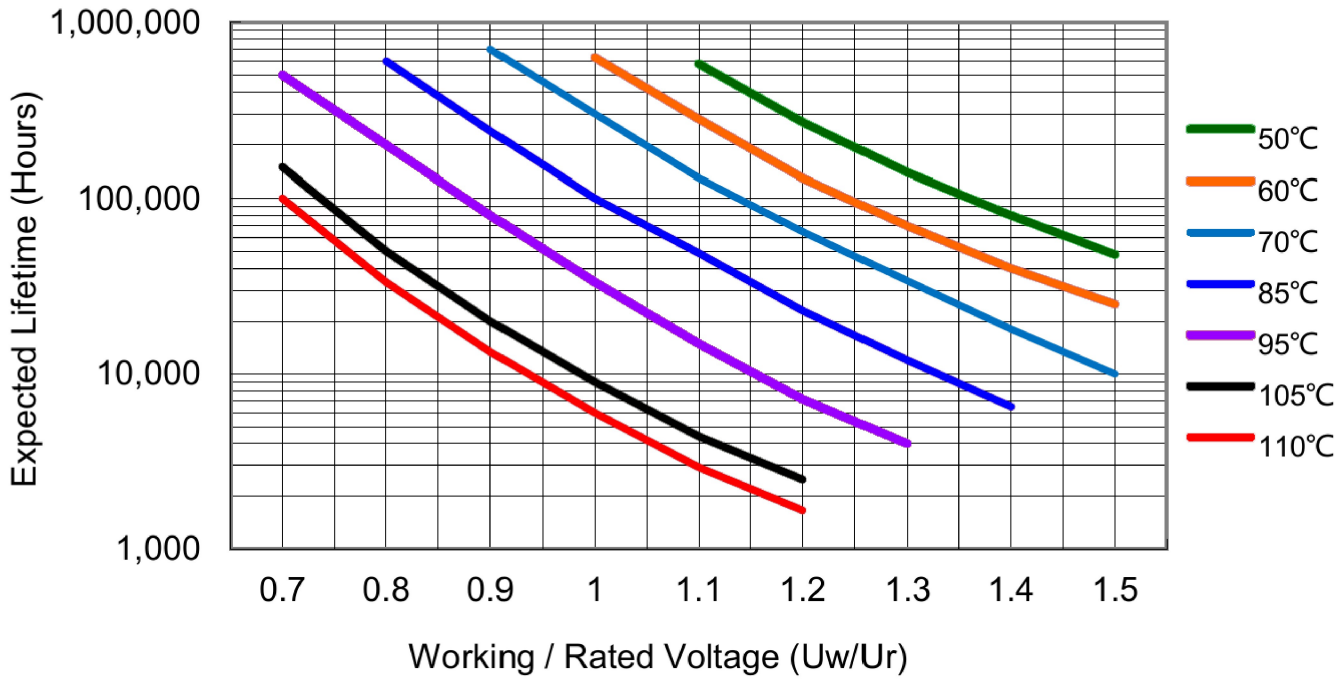
Ratings

Part Number	Cap (µF)	Dimensions W (mm)	H (mm)	T (mm)	P (mm)	dv/dt V/us	Lead Wire (mm)
			305 VAC				
MXH104K305E10	0.1	18	11	5	15	400	0.6
MXH154K305E11	0.15	18	12	6	15	400	0.6
MXH224K305E13	0.22	18	13.5	7.5	15	400	0.8
MXH224K305E14	0.22	18	14.5	8.5	15	400	0.8
MXH224K305G11	0.22	26	16.5	7	22.5	200	0.8
MXH274K305E14	0.27	18	14.5	8.5	15	400	0.8
MXH334K305E14	0.33	18	14.5	8.5	15	400	0.8
MXH334K305G11	0.33	26	16.5	7	22.5	200	0.8
MXH474K305E20	0.47	18	16	10	15	400	0.8
MXH474K305G11	0.47	26	16.5	7	22.5	200	0.8
MXH564K305E21	0.56	18	19	11	15	400	0.8
MXH564K305G20	0.56	26	19	10	22.5	200	0.8
MXH684K305E21	0.68	18	19	11	15	400	0.8
MXH684K305G20	0.68	26	19	10	22.5	200	0.8
MXH684K305H11	0.68	32	18	9	27.5	150	0.8
MXH824K305H11	0.82	32	18	9	27.5	150	0.8
MXH105K305G20	1	26	19	10	22.5	200	0.8
MXH105K305H20	1	32	20	11	27.5	150	0.8
MXH125K305G22	1.2	26	22	12	22.5	200	0.8
MXH155K305G23	1.5	26	23	13	22.5	200	0.8
MXH155K305H22	1.5	32	24.5	13	27.5	150	0.8
MXH185K305G24	1.8	26	29.5	14.5	22.5	200	0.8
MXH185K305H22	1.8	32	24.5	13	27.5	150	0.8
MXH225K305G24	2.2	26	29.5	14.5	22.5	200	0.8
MXH225K305H23	2.2	32	24	14	27.5	150	0.8
MXH275K305H27	2.7	32	28	18	27.5	150	0.8
MXH335K305H28	3.3	32	33	18	27.5	150	0.8
MXH395K305H28	3.9	32	33	18	27.5	150	0.8
MXH475K305H30	4.7	32	37	22	27.5	150	0.8
MXH685K305N31	6.8	42	37	22	37.5	100	1
MXH685K305N30	6.8	42	40	20	37.5	100	1
MXH106K305N32	10	42	44	24	37.5	100	1
MXH126K305N40	12	42	45	30	37.5	100	1
MXH156K305N40	15	42	45	30	37.5	100	1

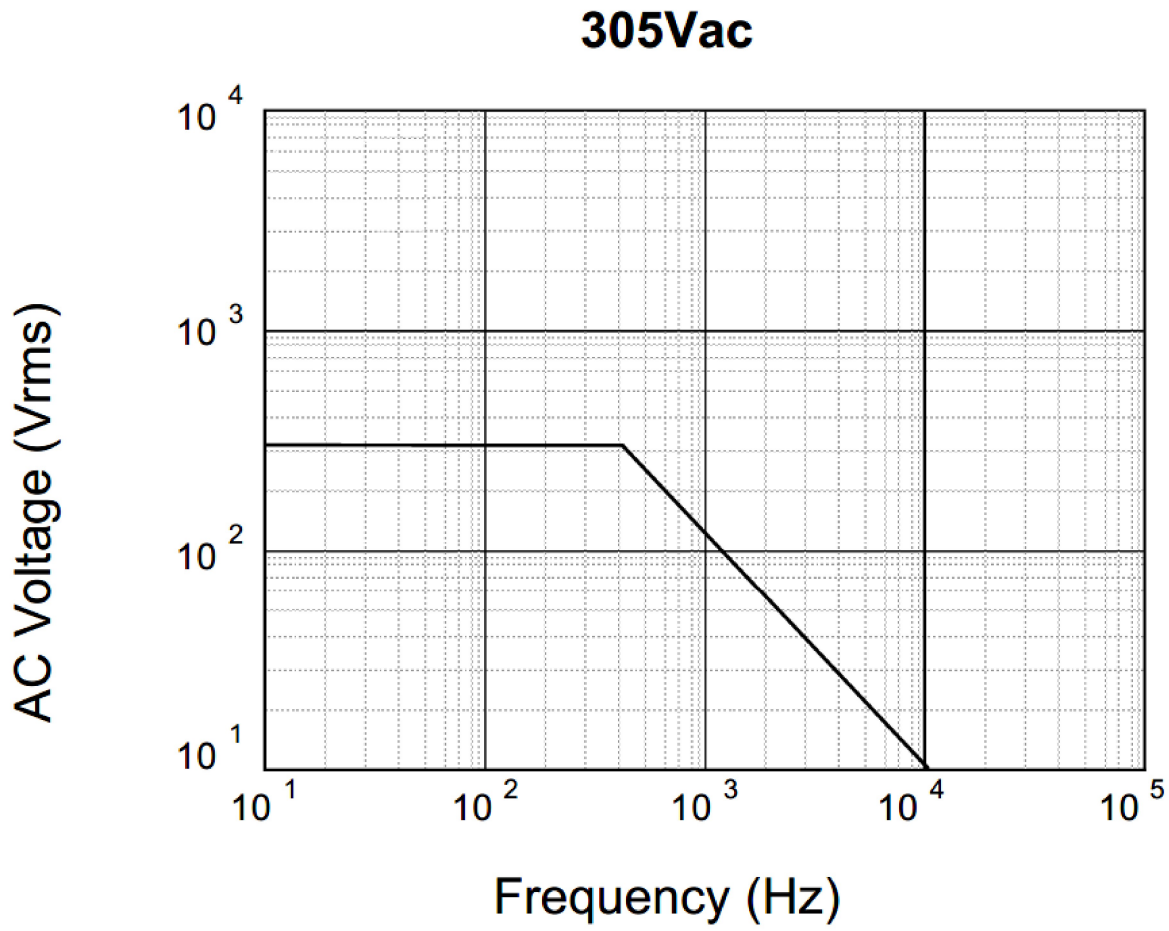
Note: Ammo Pack taping available.

THB 2,000 Hr @ 85 °C, 85% RH, and Vr, AEC-Q200

Expected Life Curve



Maximum Voltage (Vrms) Versus Frequency



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TYPE MYH, Y2, EMI, RFI Suppression Capacitors, Harsh Environment

THB 2,000 Hr @ 85 °C, 85% RH, and Vr, AEC-Q200



The MYH series of Y2, line-to-ground EMI suppression capacitors are designed for the most challenging environments. The series passes a 2,000-hour THB test, twice the 1,000-hour industry standard for THB testing. The MYH series is AEC-Q200 qualified and possesses international agency approvals for safety and performance for Y2, line-to-ground applications.

Highlights

- Excels at EMI Suppression in harsh environmental conditions
- THB 2,000 Hr @ 85℃, 85% RH, and Vr
- Automotive Grade (AEC-Q200) qualified
- High operating temperature: up to 110 °C
- International agency approvals for safety and performance

Specifications

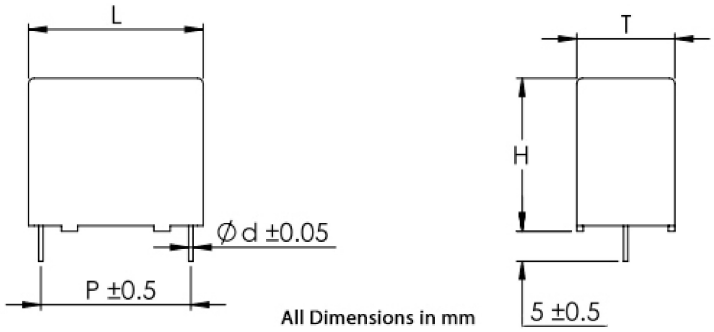
Capacitance Range	.001 µF to 1 µF
Capacitance Tolerance	±10 % (±20% optional)
Rated Voltage	300 Vac, 1500 Vdc
Operating Temperature Range	–40 ºC to +110 ºC (+85 °C to 110 °C, voltage derating factor of 1.35% per Deg. C)
Life Expectancy	100,000h at rated voltage and hot spot temperature ≤85 °C
Voltage Between Terminals UTT	AC Voltage: U_R+1200Vac for 60s or 2U_R+1200Vac for 2s DC Voltage: 4000VDC for 2s, charge current must be 1A maximum Withstanding (DC) voltage (cut off current 10mA), rise time 100V/S.
Voltage Between Terminals and Case UTC	2200Vac, 60s (at +20/±2°C)
Dissipation Factor	0.0020 @ 1KHz @ 20 ˚C
Insulation Resistance	C ≤0.33µF at 100V; 1 min. > 15000 MΩ C >0.33µF at 100V; 1 min. > 5000 MΩ*µF
IEC Climatic Category	40/110/56 IEC60068-1
Damp Heat, Steady State (Reference: IEC 60384-14; 2013/AMD1:2016)	+40ºC / 93% RH @ rated voltage for 1,344 hrs +24/-0 Capacitance Change Rate: (ΔC/C): ≤±5% DF Change (Δtgδ): ≤80*10-4 at 10 KHz (C ≤ 1µF) DF Change (Δtgδ): ≤50*10-4 at 1 KHz (C > 1µF) IR: ≥ 50% of initial limit
THB Rating	+85ºC / 85% RH @ rated voltage for 2,000hrs +24/-0 Capacitance Change Rate: (ΔC/C): ≤±10% DF Change (Δtgδ): ≤240*10-4 at 10 KHz (C ≤ 1µF) DF Change (Δtgδ): ≤150*10-4 at 1 KHz (C > 1µF) IR: ≥ 50% of initial limit
Storage Conditions	-10 °C to +40 °C ≤24 months with RH ≤70%
RoHS Compliant	

Safety Agency	Standard	File Number
UL	UL 60384-14 CSA-E60384-14	E171988
VDE	IEC 60384-14:2013/ AMD1:2016	40055905
CQC	IEC 60384- 14:2013+AMD1:2016	CQC23001381668

Construction Details	
Case Material	Plastic UL 94V-0
Resin Material	Epoxy Resin UL 94V-0
Terminal Material	Copper Clad Steel or Tinned Copper Wires

THB 2,000 Hr @ 85 °C, 85% RH, and Vr, AEC-Q200

Dimensions



Size Code Table

Size	Dimensions (mm)						Pitch (mm)	Lead Wire (mm)
Code	L	Tol. ±	H	Tol. ±	T	Tol. ±	P	Ød
D10	13	0.5	11	0.5	5	0.5	10	0.6
D11	13	0.5	12	0.5	6	0.5	10	0.6
D16	13	0.5	9	0.5	4	0.5	10	0.6
E10	18	0.5	11	0.5	5	0.5	15	0.6
E11	18	0.5	12	0.5	6	0.5	15	0.6
E13	18	0.5	13.5	0.5	7.5	0.5	15	0.8
E14	18	0.5	14.5	0.5	8.5	0.5	15	0.8
E21	18	0.5	19	0.5	11	0.5	15	0.8
G10	26	0.8	15.5	0.8	6	0.8	22.5	0.6
G11	26	0.5	16.5	0.5	7	0.5	22.5	0.8
G12	26	0.8	17	0.8	8.5	0.8	22.5	0.8
G20	26	0.5	19	0.5	10	0.5	22.5	0.8
G22	26	0.5	22	0.5	12	0.5	22.5	0.8
G25	26	0.5	25	0.5	15	0.5	22.5	0.8
H11	32	0.8	18	0.8	9	0.8	27.5	0.8
H20	32	0.8	20	0.8	11	0.8	27.5	0.8
H21	32	0.8	22	0.8	13	0.8	27.5	0.8
H24	32	0.8	28	0.8	14	0.8	27.5	0.8
H27	32	0.8	28	0.8	18	0.8	27.5	0.8
H28	32	0.8	33	0.8	18	0.8	27.5	0.8
H30	32	0.8	37	0.8	22	0.8	27.5	0.8
N21	42	0.8	24	0.8	13	0.8	37.5	1
N24	42	0.8	28	0.8	17	0.8	37.5	1
N26	42	0.8	32	0.8	19	0.8	37.5	1
N30	42	0.8	40	0.8	20	0.8	37.5	1

Part Numbering System

MYH	104	K	300	E10
Series	Capacitance	Tolerance	Voltage	Case size
MYH	EIA Cap Code 472 = 0.0047 µF 183 = 0.018 µF 564 = 0.56 µF 105 = 1 µF	K = ±10% Standard M = ±20% Optional	300 = 300 VAC	See Size Code

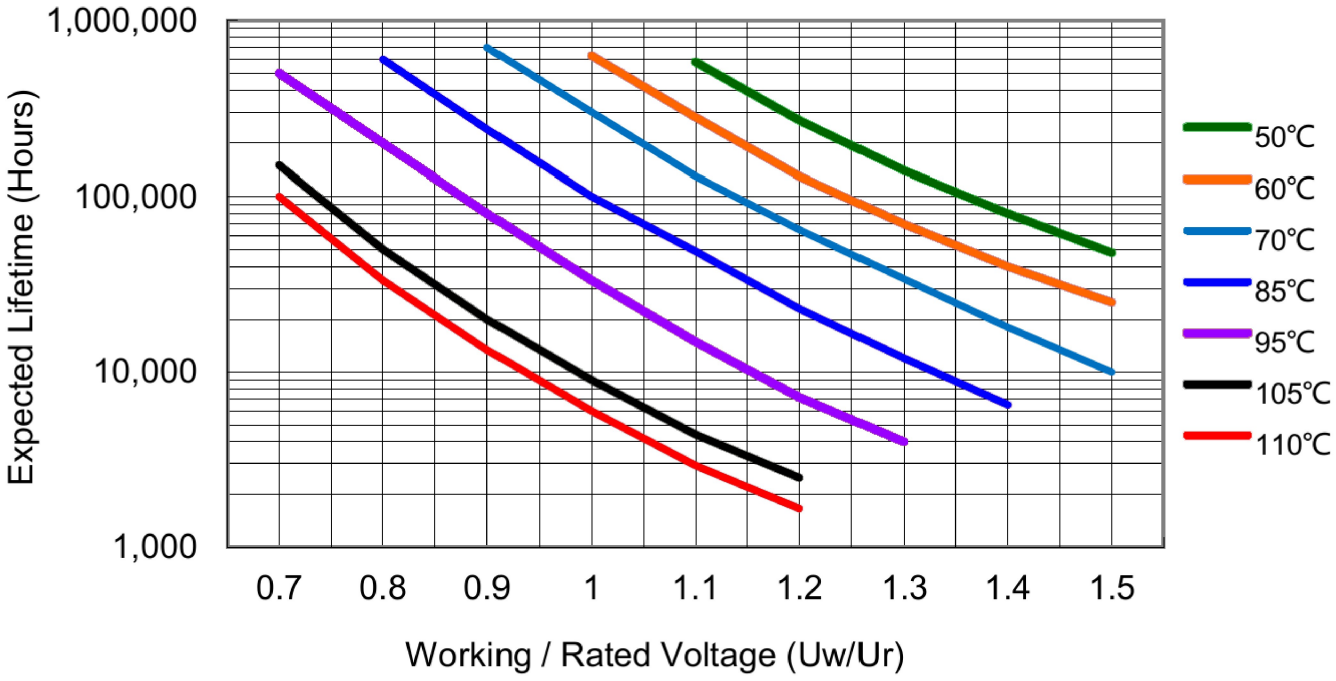
THB 2,000 Hr @ 85 °C, 85% RH, and Vr, AEC-Q200

Ratings

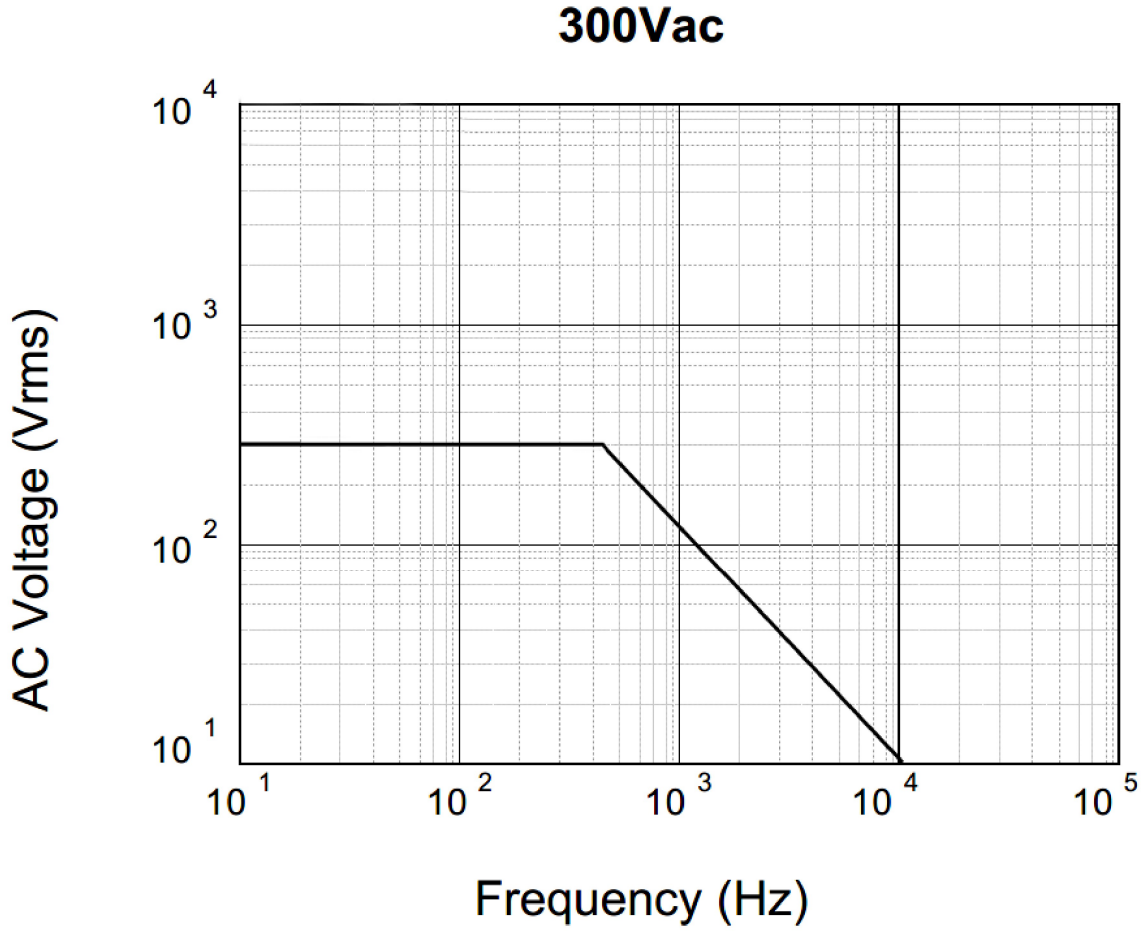
Part Number	Cap (µF)	Dimensions W mm	H mm	T mm	P mm	dv/dt V/µs	Lead Wire mm
			300 VAC				
MYH102K300D16	0.0010	13	9	4	10	800	0.6
MYH152K300D16	0.0015	13	9	4	10	800	0.6
MYH222K300D16	0.0022	13	9	4	10	800	0.6
MYH332K300D10	0.0033	13	11	5	10	800	0.6
MYH472K300D10	0.0047	13	11	5	10	800	0.6
MYH472K300D11	0.0047	13	12	6	10	800	0.6
MYH472K300E10	0.0047	18	11	5	15	600	0.6
MYH562K300E10	0.0056	18	11	5	15	600	0.6
MYH682K300D11	0.0068	13	12	6	10	800	0.6
MYH682K300E10	0.0068	18	11	5	15	600	0.6
MYH822K300E10	0.0082	18	11	5	15	600	0.6
MYH103K300D11	0.010	13	12	6	10	800	0.6
MYH103K300E10	0.010	18	11	5	15	600	0.6
MYH153K300D11	0.015	13	12	6	10	800	0.6
MYH153K300E10	0.015	18	11	5	15	600	0.6
MYH183K300E11	0.018	18	12	6	15	600	0.6
MYH223K300E11	0.022	18	12	6	15	600	0.6
MYH333K300E13	0.033	18	13.5	7.5	15	600	0.8
MYH393K300E13	0.039	18	13.5	7.5	15	600	0.8
MYH473K300E14	0.047	18	14.5	8.5	15	600	0.8
MYH473K300G10	0.047	26	15.5	6	22.5	500	0.6
MYH563K300G10	0.056	26	15.5	6	22.5	500	0.6
MYH683K300E21	0.068	18	19	11	15	600	0.8
MYH683K300G11	0.068	26	16.5	7	22.5	500	0.8
MYH823K300E21	0.082	18	19	11	15	600	0.8
MYH823K300G11	0.082	26	16.5	7	22.5	500	0.8
MYH104K300G12	0.10	26	17	8.5	22.5	500	0.8
MYH104K300H11	0.10	32	18	9	27.5	400	0.8
MYH154K300G20	0.15	26	19	10	22.5	500	0.8
MYH154K300H11	0.15	32	18	9	27.5	400	0.8
MYH184K300H20	0.18	32	20	11	27.5	400	0.8
MYH224K300G22	0.22	26	22	12	22.5	500	0.8
MYH224K300H20	0.22	32	20	11	27.5	400	0.8
MYH274K300H21	0.27	32	22	13	27.5	400	0.8
MYH334K300G25	0.33	26	25	15	22.5	500	0.8
MYH334K300H24	0.33	32	28	14	27.5	400	0.8
MYH474K300H27	0.47	32	28	18	27.5	400	0.8
MYH474K300N21	0.47	42	24	13	37.5	300	1
MYH564K300H28	0.56	32	33	18	27.5	400	0.8
MYH684K300H28	0.68	32	33	18	27.5	400	0.8
MYH684K300N24	0.68	42	28	17	37.5	300	1
MYH824K300H30	0.82	32	37	22	27.5	400	0.8
MYH824K300N26	0.82	42	32	19	37.5	300	1
MYH105K300H30	1	32	37	22	27.5	400	0.8
MYH105K300N30	1	42	40	20	37.5	300	1

THB 2,000 Hr @ 85 °C, 85% RH, and Vr, AEC-Q200

Expected Life Curve



Maximum Voltage (Vrms) Versus Frequency



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TYPE MXT, X2, EMI/RFI Suppression Capacitors, Harsh Environment

THB 1,000 Hr @ 85 °C, 85% RH, and Vr



The MXT series is constructed of Metallized Polypropylene Film encapsulated with self-extinguishing resin in plastic box of material meeting the UL 94V-0 requirements. The series is suitable for harsh environment conditions. Applications include “across the line” class X2 and EMI/RFI suppression.

Highlights

- THB 1,000 Hr @ 85˚C, 85% RH, and Vr
- High stability of capacitance
- High operating temperature: 110 °C
- Self-healing property
- Flame-retardant plastic case and resin
- Suitable for harsh environmental conditions

Specifications

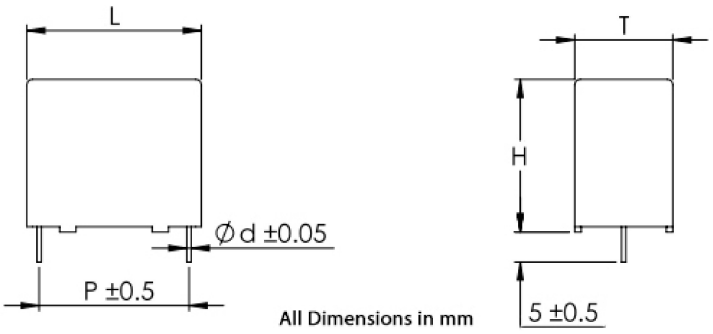
Capacitance Range	0.1 µF to 40 µF
Capacitance Tolerance	±10 % (±20% optional)
Rated Voltage	305 Vac, 630 Vdc
Operating Temperature Range	–40 ºC to +110 ºC (+85 °C to 110 °C, voltage derating factor of 1.35% per Deg. C)
Life Expectancy	100,000h at rated voltage and hot spot temperature <85 °C
Voltage Between Terminals UTT	DC Voltage: 4.3Ur for 60s or √2(2UR + 1000 Vac) VDC for 2s, charge current must be 1A max. Withstanding DC voltage (cut-off current 10 mA) Rise time 100V/s
Voltage Between Terminals and Case UTC	2UR + 1500 Vac, 60s at 20 °C
Dissipation Factor	.001 @ 1 kHz @ 20 ˚C
Insulation Resistance	C ≤0.33 µF at 100V; 1 min. > 15000 MΩ C >0.33 µF at 100V; 1 min. > 5000 MΩ x µF
IEC Climatic Category	40/110/56 IEC60068-1
Damp Heat, Steady State	+40 ºC / 93% RH @ rated voltage for 1,344 hrs +24/-0 Capacitance Change Rate: (ΔC/C): ≤±5% DF Change (Δtgδ): ≤80*10-4 at 10 kHz (C ≤ 1µF) DF Change (Δtgδ): ≤50*10-4 at 1 kHz (C > 1µF) IR: ≥ 50% of initial limit
THB Rating	+85ºC / 85% RH @ rated voltage for 1,000 hrs +24/-0 Capacitance Change Rate: (ΔC/C): ≤±10% DF Change (Δtgδ): ≤240*10-4 at 10 kHz (C ≤ 1 µF) DF Change (Δtgδ): ≤150*10-4 at 1 kHz (C > 1 µF) IR: ≥ 50% of initial limit
Storage Conditions	-40 °C to +85 °C ≤24 months from date code, Average RH ≤70%
RoHS Compliant	

Safety Agency	Standard	File Number
UL	UL 60384-14 CSA-E60384-14	E171988
VDE	IEC 60384-14:2013 IEC 60384-14:2013/ AMD1:2016	40055249
CQC	IEC 60384-14 GB/T6346.14-2015	CQC23001381667

Construction Details	
Case Material	Plastic UL 94V-0
Resin Material	Epoxy Resin UL 94V-0
Terminal Material	Pitch ≤27.5mm = Copper Clad Steel Pitch ≥37.5mm = Tinned Copper Wire

THB 1,000 Hr @ 85 °C, 85% RH, and Vr

Dimensions



Size Code Table

Size	Dimensions (mm)						Pitch (mm)	Lead Wire (mm)
Code	L	Tol. ±	H	Tol. ±	T	Tol. ±	P	Ød
E10	18	0.5	11	0.5	5	0.5	15	0.6
E11	18	0.5	12	0.5	6	0.5	15	0.6
E13	18	0.5	13.5	0.5	7.5	0.5	15	0.8
E14	18	0.5	14.5	0.5	8.5	0.5	15	0.8
E20	18	0.5	16	0.5	10	0.5	15	0.8
E21	18	0.5	19	0.5	11	0.5	15	0.8
G11	26	0.5	16.5	0.5	7	0.5	22.5	0.8
G20	26	0.5	19	0.5	10	0.5	22.5	0.8
G22	26	0.5	22	0.5	12	0.5	22.5	0.8
G23	26	0.5	23	0.5	13	0.5	22.5	0.8
G24	26	0.5	29.5	0.5	14.5	0.5	22.5	0.8
H11	32	0.8	18	0.8	9	0.8	27.5	0.8
H20	32	0.8	20	0.8	11	0.8	27.5	0.8
H22	32	0.8	24.5	0.8	13	0.8	27.5	0.8
H23	32	0.8	24	0.8	14	0.8	27.5	0.8
H27	32	0.8	28	0.8	18	0.8	27.5	0.8
H28	32	0.8	33	0.8	18	0.8	27.5	0.8
H30	32	0.8	37	0.8	22	0.8	27.5	0.8
N31	42	1.0	37	1.0	22	1.0	37.5	1.0
N30	42	1.0	40	1.0	20	1.0	37.5	1.0
N32	42	1.0	44	1.0	24	1.0	37.5	1.0
N40	42	1.0	45	1.0	30	1.0	37.5	1.0
R40	57.5	1.0	45	1.0	30	1.0	52.5	1.2
R52	57.5	1.0	60	1.0	45	1.0	52.5	1.2

Part Numbering System

MXT Series	104 Capacitance	K Tolerance	305 Voltage	E10 Case
MXT	EIA Cap Code 104 = 0.1 µF 125 = 1.2 µF 156 = 15 µF	K = ±10% Standard M = ±20% Optional	305 = 305 Vac	See Size CodeTable

THB 1,000 Hr @ 85 °C, 85% RH, and Vr

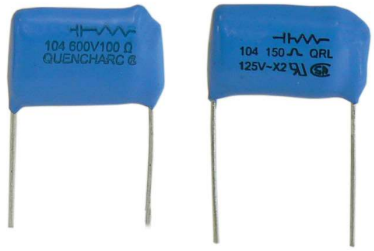
Ratings

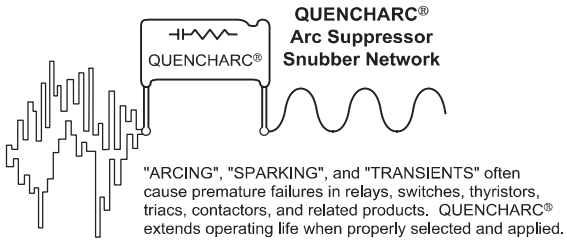
Part Number	Cap (µF)	Dimensions L (mm)	H (mm)	T (mm)	P (mm)	dv/dt (V/µs)	Ød (mm)
305 VAC							
MXT104K305E10	0.10	18	11	5	15	400	0.6
MXT154K305E11	0.15	18	12	6	15	400	0.6
MXT224K305E13	0.22	18	13.5	7.5	15	400	0.8
MXT224K305G11	0.22	26	16.5	7	22.5	200	0.8
MXT274K305E14	0.27	18	14.5	8.5	15	400	0.8
MXT334K305E14	0.33	18	14.5	8.5	15	400	0.8
MXT334K305G11	0.33	26	16.5	7	22.5	200	0.8
MXT474K305E20	0.47	18	16	10	15	400	0.8
MXT474K305G11	0.47	26	16.5	7	22.5	200	0.8
MXT564K305E21	0.56	18	19	11	15	400	0.8
MXT564K305G20	0.56	26	19	10	22.5	200	0.8
MXT684K305G20	0.68	18	19	11	15	400	0.8
MXT684K305E21	0.68	26	19	10	22.5	200	0.8
MXT684K305H11	0.68	32	18	9	27.5	150	0.8
MXT824K305H11	0.82	32	18	9	27.5	150	0.8
MXT105K305G20	1.0	26	19	10	22.5	200	0.8
MXT105K305H20	1.0	32	20	11	27.5	150	0.8
MXT125K305G22	1.2	26	22	12	22.5	200	0.8
MXT155K305G23	1.5	26	23	13	22.5	200	0.8
MXT155K305H22	1.5	32	24.5	13	27.5	150	0.8
MXT185K305G24	1.8	26	29.5	14.5	22.5	200	0.8
MXT185K305H22	1.8	32	24.5	13	27.5	150	0.8
MXT225M305G24	2.2	26	29.5	14.5	22.5	200	0.8
MXT225K305G24	2.2	26	29.5	14.5	22.5	200	0.8
MXT225K305H23	2.2	32	24	14	27.5	150	0.8
MXT275K305H27	2.7	32	28	18	27.5	150	0.8
MXT335K305H28	3.3	32	33	18	27.5	150	0.8
MXT395K305H28	3.9	32	33	18	27.5	150	0.8
MXT475K305H30	4.7	32	37	22	27.5	150	0.8
MXT685K305N30	6.8	42	37	22	37.5	100	1.0
MXT685K305N31	6.8	42	40	20	37.5	100	1.0
MXT106K305N32	10	42	44	24	37.5	100	1.0
MXT126K305N40	12	42	45	30	37.5	100	1.0
MXT156K305N40	15	42	45	30	37.5	100	1.0
MXT186K305R40	18	57.5	45	30	52.5	80	1.2
MXT206K305R40	20	57.5	45	30	52.5	80	1.2
MXT406K305R52	40	57.5	60	45	52.5	80	1.2

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Type Q/QRL (Quencharc®) Arc Suppressor/Snubber Network

Radial Metallized Polyester RC Network for Transient Suppression



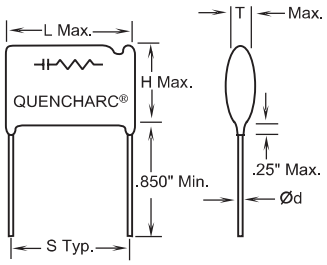


"ARCING", "SPARKING", and "TRANSIENTS" often cause premature failures in relays, switches, thyristors, triacs, contactors, and related products. QUENCHARC® extends operating life when properly selected and applied.

Highlights

- Noise and arc suppression
- RC Snubber Network
- Relay contact protection
- Noise reduction on controllers and drives
- EMI/RFI reduction
- dv/dt suppression
- Type QRL - UL/CSA verison
- Coated with flame retardant epoxy
- Halogen-free (date codes 1807 and after)

Outline Dimensions



Specifications

Capacitance Range: 0.10 µF, 0.25 µF, 0.50 µF, 1.0 µF

Voltage Range: 200 Vdc/125 Vac, 60 Hz thru 1600 Vdc/660 Vac, 60 Hz

Capacitance Tolerance: ±20%

Resistor Tolerance: ±10%

Resistor Values: 22, 39, 47, 100, 150, 220, 330, 680 ohms

Operating Temperature Range : –55 °C to +85 °C at full rated voltage

Construction: Metallized polyester in series with a carbon composition resistor[1]

Dielectric Withstand Voltage: 1.6 x DC rated voltage @ +25 °C

DC Life Test: 125% of rated voltage for a period of 500 hours at 85 °C with capacitance change ≤5% and DF ≤ original limits

Long Term Stability: The capacitance shall not change more than 2% when stored at ambient temperature and humidity for a period of two years or less.

RoHS Compliant

Ratings

Catalog Part Number	Cap (uF)	Resistor		Dimensions in Inches						Dimensions in Millimeters					
		Ohms	Watts	L Max	T Max	H Max	S Typ.	$Ød_c$ Typ.	$Ød_r$ Typ.	L Max	T Max	H Max	S Typ.	$Ød_c$ Typ.	$Ød_r$ Typ.
200 Vdc / 125Vac															
504M02QA22	0.5	22	1/2	1.08	0.37	0.64	0.82	0.032	0.025	27.4	9.4	16.3	20.8	0.8	0.635
504M02QA47	0.5	47	1/2	1.08	0.37	0.64	0.82	0.032	0.025	27.4	9.4	16.3	20.8	0.8	0.635
504M02QA100	0.5	100	1/2	1.08	0.37	0.64	0.82	0.032	0.025	27.4	9.4	16.3	20.8	0.8	0.635
504M02QA220	0.5	220	1/2	1.08	0.37	0.64	0.82	0.032	0.025	27.4	9.4	16.3	20.8	0.8	0.635
105M02QB22	1.0	22	1/2	1.45	0.39	0.66	1.20	0.032	0.025	36.8	9.9	16.7	30.5	0.8	0.635
105M02QB47	1.0	47	1/2	1.45	0.39	0.66	1.20	0.032	0.025	36.8	9.9	16.7	30.5	0.8	0.635
600 Vdc / 250Vac															
104M06QC22	0.1	22	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC47	0.1	47	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC100	0.1	100	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC150	0.1	150	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC220	0.1	220	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635
104M06QC330	0.1	330	1/2	1.08	0.39	0.66	0.82	0.032	0.025	27.4	9.9	16.7	20.8	0.8	0.635

Type QRL: UL File No. E33628, CSA File No. LR32208

Ratings

Catalog Part Number	Cap (µF)	Resistor Ohms	Resistor Watts	Dimensions in Inches L Max	T Max	H Max	S Typ.	Ød$_c$ Typ.	Ød$_r$ Typ.	Dimensions in Millimeters L Max	T Max	H Max	S Typ.	Ød$_c$ Typ.	Ød$_r$ Typ.
600 Vdc / 250Vac															
254M06QD22	0.25	22	1/2	1.45	0.42	0.75	1.20	0.032	0.025	36.8	10.6	19.0	30.5	0.8	0.635
254M06QD47	0.25	47	1/2	1.45	0.42	0.75	1.20	0.032	0.025	36.8	10.6	19.0	30.5	0.8	0.635
254M06QD100	0.25	100	1/2	1.45	0.42	0.75	1.20	0.032	0.025	36.8	10.6	19.0	30.5	0.8	0.635
254M06QD150	0.25	150	1/2	1.45	0.42	0.75	1.20	0.032	0.025	36.8	10.6	19.0	30.5	0.8	0.635
504M06QE22	0.5	22	1/2	1.45	0.59	0.92	1.20	0.032	0.025	36.8	15.0	23.4	30.5	0.8	0.635
504M06QE47	0.5	47	1/2	1.45	0.59	0.92	1.20	0.032	0.025	36.8	15.0	23.4	30.5	0.8	0.635
504M06QE100	0.5	100	1/2	1.45	0.59	0.92	1.20	0.032	0.025	36.8	15.0	23.4	30.5	0.8	0.635
504M06QE150	0.5	150	1/2	1.45	0.59	0.92	1.20	0.032	0.025	36.8	15.0	23.4	30.5	0.8	0.635
1200 Vdc / 480Vac															
104M48QH39	0.1	39	2	1.60	0.64	1.04	1.29	0.032	0.032	40.6	16.3	26.4	32.7	0.8	0.8
1600 Vdc / 660Vac															
104M66QV39	0.1	39	2	2.18	0.54	1	1.8	0.032	0.032	55.3	13.7	25.4	45.7	0.8	0.8
UL/CSA Recognized Across-the-Line Application Type QRL 125VAC Type QRL complies with UL1414/CSA-C22.2 No. 1															
104MACQRL150	0.1	150	1/2	1.08	0.44	0.66	0.82	0.032	0.025	27.4	11.18	16.7	20.8	0.8	0.635
104MACQRL680	0.1	680	1/2	1.08	0.44	0.66	0.82	0.032	0.025	27.4	11.18	16.7	20.8	0.8	0.635

Type QRL: UL File No. E33628, CSA File No. LR32208
[1] Two watt resistor is wire wound
Shaded items are stocked parts

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