

MML™ M-Series

Miniature Micro-Layer™ Film Capacitor with Metallized Polymer Dielectric

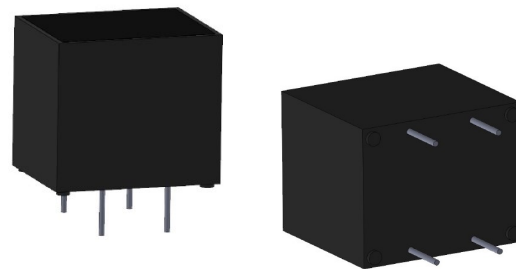
Industry-Leading Performance at Temperatures up to 140°C

FEATURES

- ♦ Up to 50% size and weight reduction vs traditional technologies
- ♦ High temperature to +140°C
- ♦ Stable Performance through Temperature/Voltage Range
- ♦ Rugged/Lightweight Construction

APPLICATIONS

Aerospace & Defense, Industrial, Medical, Transportation



PHYSICAL CHARACTERISTICS

- Construction:** Non-Inductive stacked metallized polymer film encapsulated in flame retardant resin
- Case:** Flame retardant, molded diallyl phthalate (DAP) Housing
- Leads:** 18AWG 60Sn/40Pb Solder Coated Copper Wire
See page 2 for number of leads and lead spacing

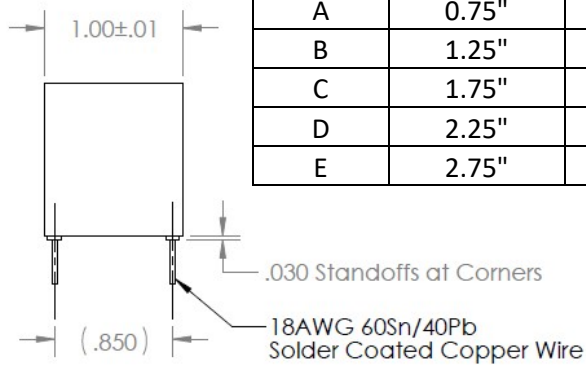
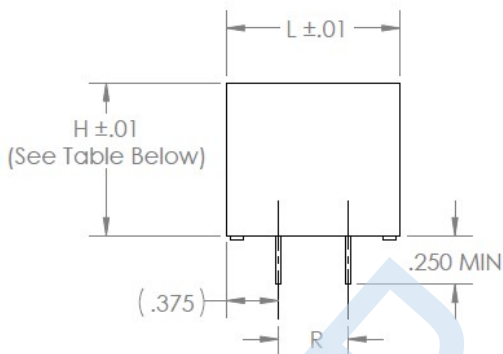
ELECTRICAL SPECIFICATIONS

- Operating Temp:** -55°C to +125°C (Up to 140°C at 0.7*U_{RDC})
- Capacitance Range:** 1μF to 105μF
- Capacitance Tolerance:** ±10%
- Voltage Range:** 300VDC–1000VDC
- Dissipation Factor:** 0.7% max, when measured at 1kHz @ 25°C
- Insulation Resistance:** 10,000 MΩ-μF minimum, when measured at rated voltage (up to 500VDC max) @ 25°C
- Dielectric Withstanding Voltage:** 1.5*U_{RDC} for 1 minute

ORDERING GUIDE

<u>MMLM</u>	<u>E</u>	<u>14</u>	Example
Series	Case Code See Capacitance Ratings Table (page 2)	Capacitance Code See Capacitance Ratings Table (page 2)	MMLME14
			Capacitance 16μF
			Voltage 850VDC
			Case Height 0.7 in

****Custom configurations and extended/intermediary values available upon request.**



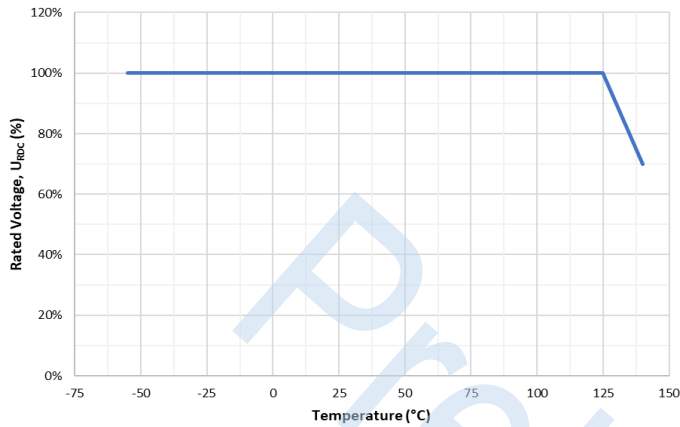
Case Code	Case Length "L"	Lead Spacing "R"	No. Leads per Side
A	0.75"	-	1
B	1.25"	0.50"	2
C	1.75"	1.00"	2
D	2.25"	1.50"	2
E	2.75"	2.00"	2

		Capacitance Code	Case Height "H"	Rated Capacitance by Case Code				
				A (0.75")	B (1.25")	C (1.75")	D (2.25")	E (2.75")
Rated Voltage (VDC)	300V	01	0.5"	11 μ F	23 μ F	35 μ F	46 μ F	58 μ F
		02	0.7"	23 μ F	46 μ F	70 μ F	93 μ F	-
		03	0.9"	35 μ F	70 μ F	105 μ F	-	-
		04	1.1"	46 μ F	93 μ F	-	-	-
	450V	05	0.5"	5 μ F	11 μ F	16 μ F	22 μ F	27 μ F
		06	0.7"	11 μ F	22 μ F	33 μ F	44 μ F	55 μ F
		07	0.9"	16 μ F	33 μ F	50 μ F	66 μ F	83 μ F
		08	1.1"	22 μ F	44 μ F	66 μ F	88 μ F	-
	600V	09	0.5"	3 μ F	6 μ F	9 μ F	12 μ F	15 μ F
		10	0.7"	6 μ F	12 μ F	18 μ F	25 μ F	31 μ F
		11	0.9"	9 μ F	18 μ F	27 μ F	37 μ F	46 μ F
		12	1.1"	12 μ F	24 μ F	36 μ F	50 μ F	62 μ F
	850V	13	0.5"	1.5 μ F	3 μ F	5 μ F	6 μ F	8 μ F
		14	0.7"	3 μ F	6 μ F	10 μ F	13 μ F	16 μ F
		15	0.9"	4.5 μ F	9 μ F	15 μ F	20 μ F	24 μ F
		16	1.1"	6 μ F	12 μ F	20 μ F	26 μ F	32 μ F
	1000V	17	0.5"	1 μ F	2 μ F	3.5 μ F	4.5 μ F	6 μ F
		18	0.7"	2 μ F	4.5 μ F	7 μ F	9.5 μ F	12 μ F
		19	0.9"	3.5 μ F	7 μ F	10.5 μ F	14 μ F	18 μ F
		20	1.1"	4.5 μ F	9.5 μ F	14 μ F	19 μ F	24 μ F

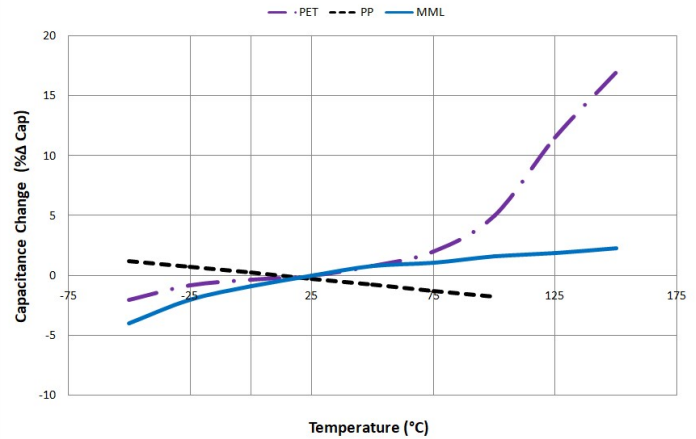
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MML™ Performance Characteristics

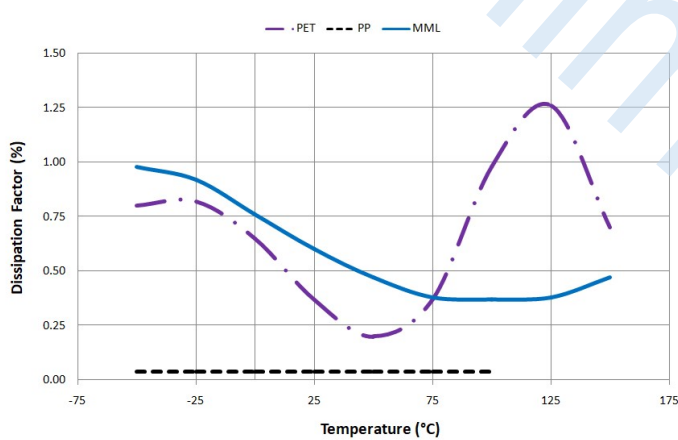
Temperature Derating



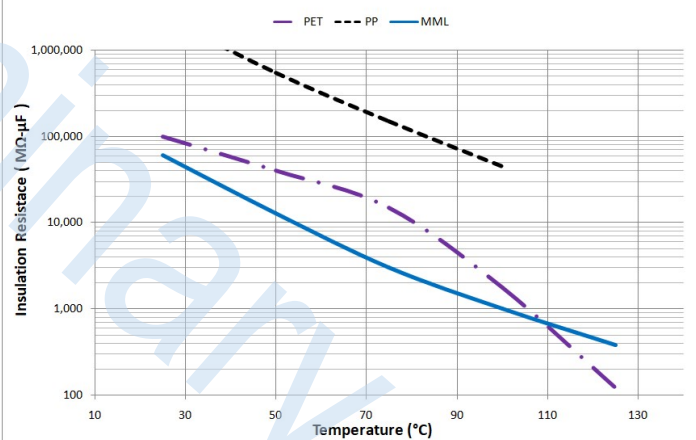
Capacitance Change vs. Temperature



Dissipation Factor vs. Temperature



Insulation Resistance vs. Temperature



Environmental Test	Standard	Method	Condition
Humidity (Steady-State)	MIL-STD-202	103	C
Barometric Pressure (Reduced)	MIL-STD-202	105	C
Thermal Shock	MIL-STD-202	107	A
Life (at Elevated Ambient Temperature)	MIL-STD-202	108	F
Vibration, High Frequency	MIL-STD-202	204	D
Shock (Specified Pulse)	MIL-STD-202	213	I
Resistance to Solvents	MIL-STD-202	215	-
Fungus	MIL-STD-810	508	-