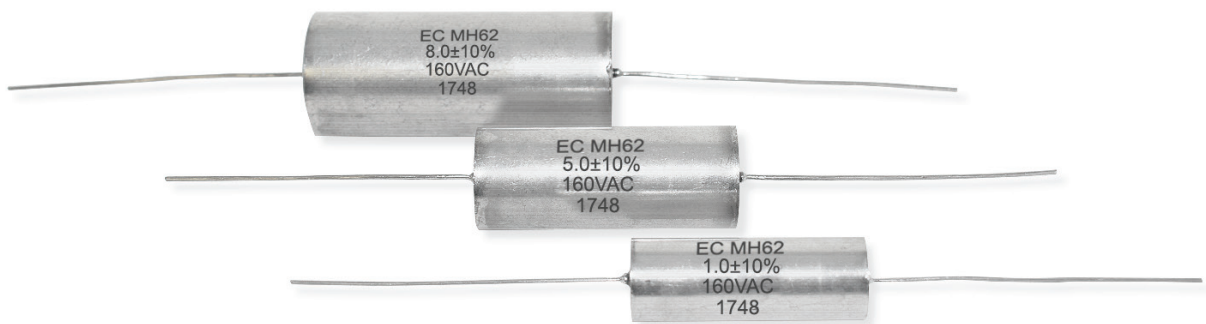


## Hermetically Sealed

Specifically developed for 400Hz 125°C AC filtering in aerospace and marine applications.



### FEATURES

- 125°C operation without derating
- Rated AC voltage: 160 VAC at 400Hz
- Environmentally sealed hermetic packaging
- Proven 125°C dielectric system established in 400Hz AC filtering applications directly mounted on aerospace generators
- Dual screened through 100% burn-in at 125°C for both peak DC and 400Hz AC ratings

### STANDARD CONFIGURATION

- MH52 Metal tube, herm seal round without insulating sleeve axial leads insulated case
- MH62 Metal tube, herm seal round with clear, plastic insulating sleeve axial leads insulated case

# Specification Summary

## Capacitance Range

0.33 $\mu$ F to 8.0 $\mu$ F

## Capacitance Tolerance

Standard capacitance tolerance is  $\pm 5\%$ . Tolerances of  $\pm 20\%$ ,  $\pm 10\%$ ,  $\pm 3\%$  are available upon request.

## Operating Temperature Range

-55°C to +125°C without derating

## Enclosure/Construction

Hermetically sealed in metal tubes with glass-to-metal solder-sealed terminals

## Voltage Rating

250VDC

160VAC

## Quality Control

Capacitors are tested 100% for:

- Capacitance
- Tolerance
- Dissipation Factor
- Dielectric withstanding voltage
- Insulation Resistance
- 125°C Peak DC Burn-in
- 125°C 400Hz AC Burn-in

Process and inspection data are maintained on file and available upon special request.

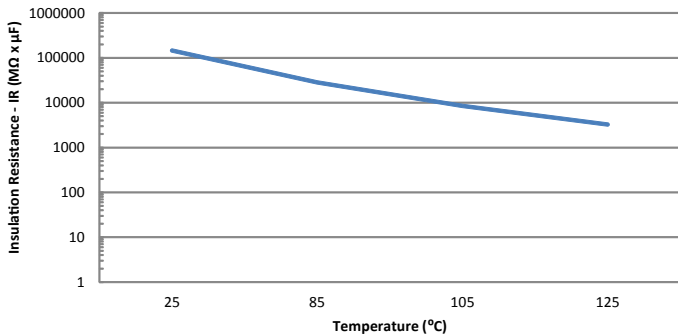
## Environmental

Parameter	Method	Condition
Vibration	204	D
Immersion	104	B
Shock	213	I
Humidity	106	-
Thermal Shock	107	A
Life	108	F

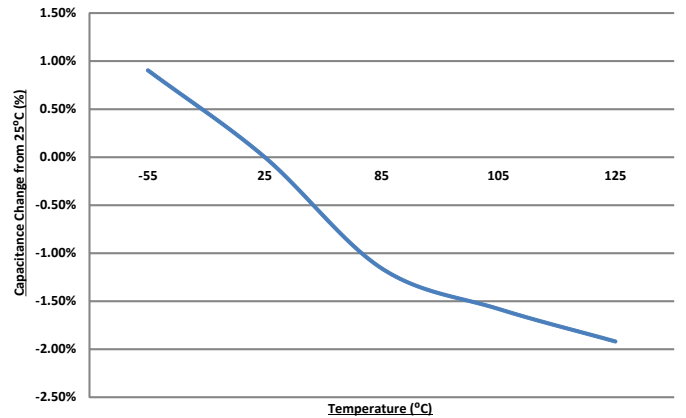
Reference MIL-STD-202

# Characteristics

Typical Insulation Resistance - IR ( $M\Omega \times \mu F$ ) vs. Temperature ( $^{\circ}C$ )

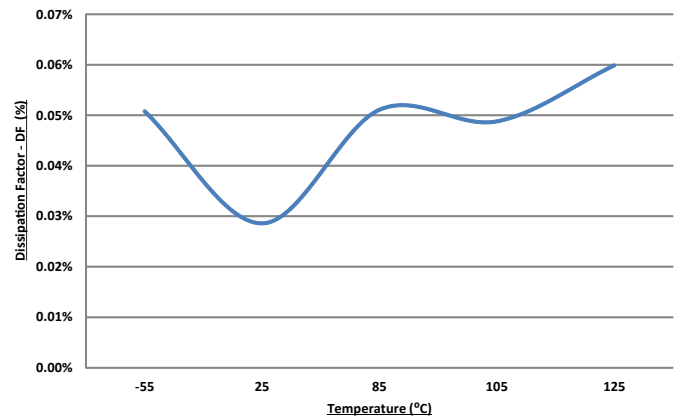


Typical Capacitance Change (%) at 400Hz vs. Temperature ( $^{\circ}C$ )

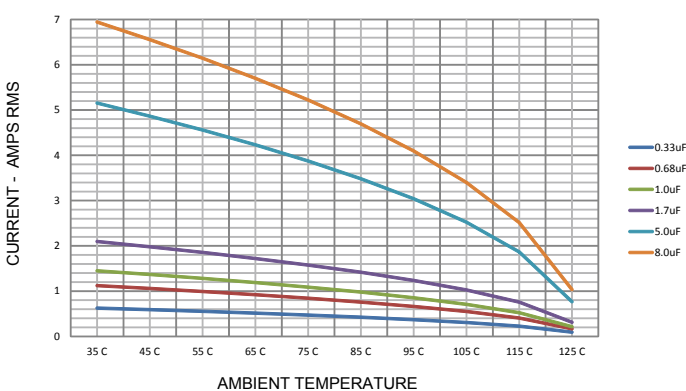


PART NUMBER	VALUE	VDC	VAC	Xc 400Hz (ohms)	120 vac Irms (amps)	140 vac Irms (amps)	160 vac Irms (amps)
MH_2F334_	0.33	250	160	1205.7	0.100	0.116	0.133
MH_2F684_	0.68	250	160	585.1	0.205	0.239	0.273
MH_2F105_	1.0	250	160	397.9	0.302	0.352	0.402
MH_2F175_	1.7	250	160	234.1	0.513	0.598	0.684
MH_2F505_	5.0	250	160	79.6	1.508	1.759	2.011
MH_2F805_	8.0	250	160	49.7	2.413	2.815	3.217

Typical Dissipation Factor - DF (%) at 400Hz vs. Temperature ( $^{\circ}C$ )



MAXIMUM RMS CURRENT AT 400Hz



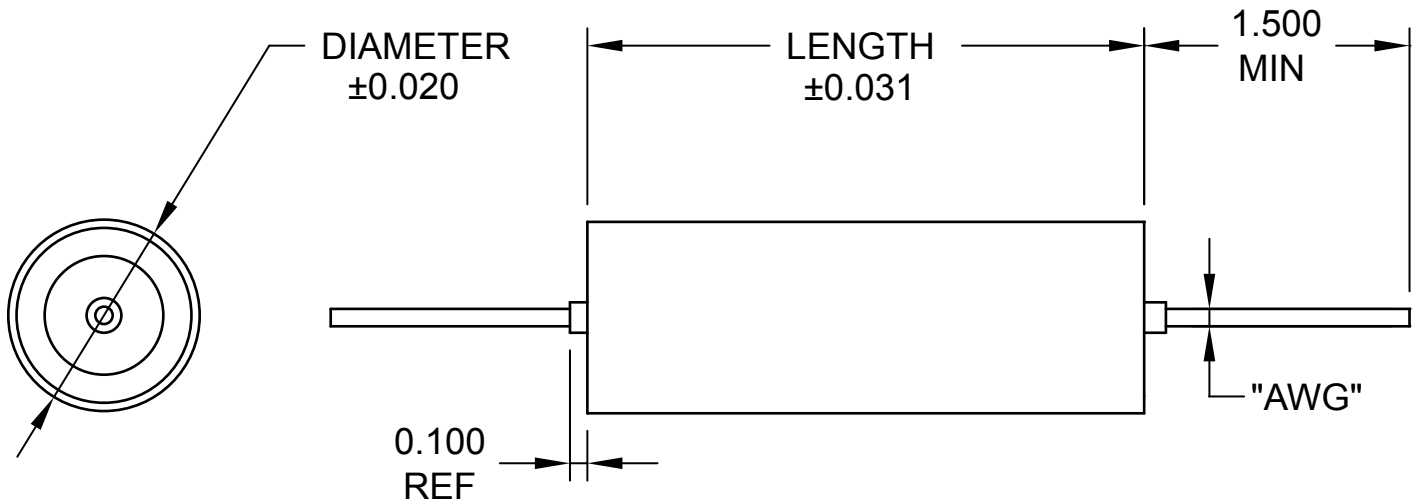
## Detail Data

PART NUMBER	VALUE	VDC	VAC	I Peak	dv/dt	DIAMETER	LENGTH	AWG
MH_2F334_	0.33	250	160	120	363	0.500	0.875	#20
MH_2F684_	0.68	250	160	247	363	0.700	0.875	#18
MH_2F105_	1.0	250	160	126	126	0.500	1.500	#20
MH_2F175_	1.7	250	160	129	76	0.500	2.125	#20
MH_2F505_	5.0	250	160	628	126	1.000	1.500	#18
MH_2F805_	8.0	250	160	607	76	1.000	2.125	#18

Notes: Other values and voltages available upon request.

Please add 0.030" to diameter and length for insulating sleeve.

## Style



Note: Please add 0.030" to diameter and length for insulating sleeve.

## Additional Information

The MH series hermetically sealed capacitors are specifically designed for 400Hz AC filtering in high reliability applications. ECI's 125°C metallized dielectric system, combined with unique proprietary process development, yields superior performance and electrical characteristics to traditional 125°C dielectric choices like polycarbonate or PPS. MH style capacitors have been employed in critical aerospace and marine 400Hz AC applications since 2002. ECI's critical process development and testing insures our customers receive only the highest reliability capacitors.

## How to Order

TYPE Metallized Plastic Film	→	<b>MH</b>
STYLE 5=Metal tube, hermetically sealed round without insulating sleeves 6=Metal tube, hermetically sealed round with clear plastic insulating sleeves	→	<b>52F</b>
CAPACITANCE IN PICO FARADS The first two digits are significant figures, the third digit represents the number of zeros to follow to express the capacitance in picofarads.	→	<b>334</b>
TOLERANCE Standard tolerance is $\pm 5\%$ . Tolerances of $\pm 20\%$ , $\pm 10\%$ , $\pm 3\%$ are available upon request.	→	<b>J</b>

### Marking And Date Code

All capacitors are marked with company initials "EC", corporate logo or EC trademark—in addition to type MH, capacitance, tolerance, rated DC working voltage and date code. The first two digits of the date code represent the year, the second two digits the week, i.e., 1252 is the 52nd week of 2012, 1202 is the second week of 2012.

### Quality Assurance

Major emphasis is placed on quality assurance. EC is an ISO 9001-2008 and AS9100:2009 and ISO/TS 16949:2009 Certified Company. Raw material inspection and the use of SPC manufacturing procedures assure the highest quality standards. Procedures are fully described in the EC Quality Control Manual. Electronic Concepts will continue to advance the state-of-the-art by utilizing leading edge technology, compact capacitor designs and establishing reliability procedures.

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