OBSOLETE

EMI-RFI Filters

GL Inlet Single-Phase Filters

Overview

The KEMET GL compact inlet filters cover single-phase requirements with a wide variety of characteristics. These filters are optimized for conduction noise.

Applications

- Industrial equipment
- Electronic equipment
- Audiovisual system

Benefits

- Single-phase 250 VAC
- Current range from 3 to 15 A
- Operating temperature range from −25°C to +55°C
- UL and CSA or UL, CSA, and TÜV, or TÜV approved versions available
- RoHS compliant



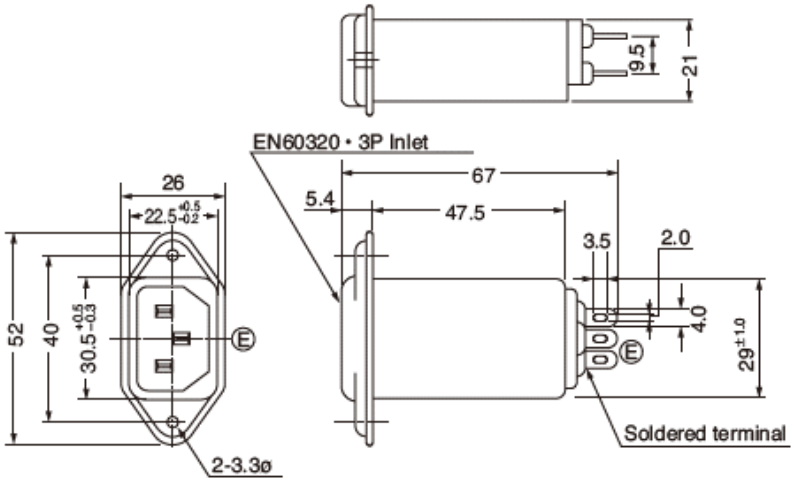
Part Number System

GL-	2	03	0C	-10
Series	Phase	Rated Current (A)	Specification	Terminal Type
GL	2 = Single-phase	0x = 0x A xx = xx A	0C = Standard 0C1 = Without C_Y capacitor 0C2 = High performance at low frequency 0C3 = High performance at high frequency 0C4 = with C_X capacitor 0.082 µF 0E = Downward terminal 0ET = Downward terminal, without C_Y capacitor 0F = Compact 0FV = Squeeze case 0H2 = With fuse 0M = High performance at low frequency, limited to rear panel mounting	Blank = Solder terminal -10 = Solder terminal -20 = Faston® terminal #187 -30 = Faston® terminal #250 Note: With exceptions, see Table 1 for details Note: Faston® is a registered trademark of Tyco Electronics AMP

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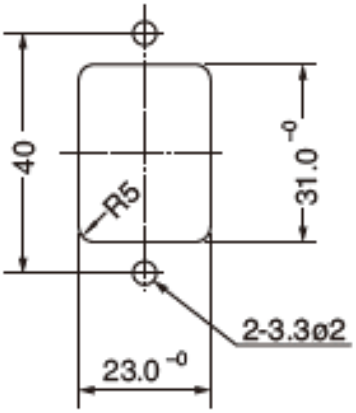
Dimensions – Millimeters

GL-***0C*

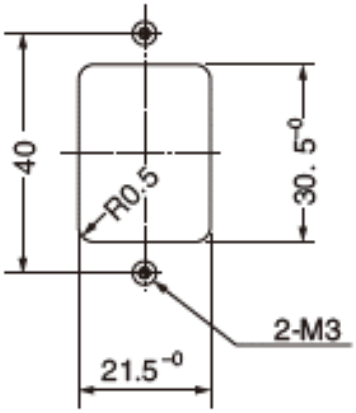


Installation Reference

1) For rear panel installation



2) For front panel installation

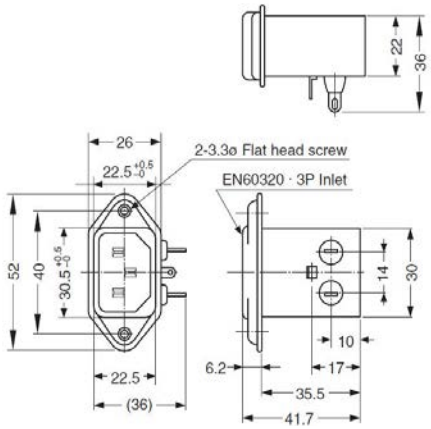


Recommended torque (N-m) maximum

- *Panel installation (M3: 0.78)*

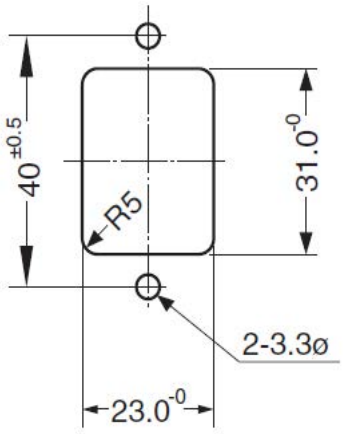
Dimensions – Millimeters cont.

GL-2**0E*



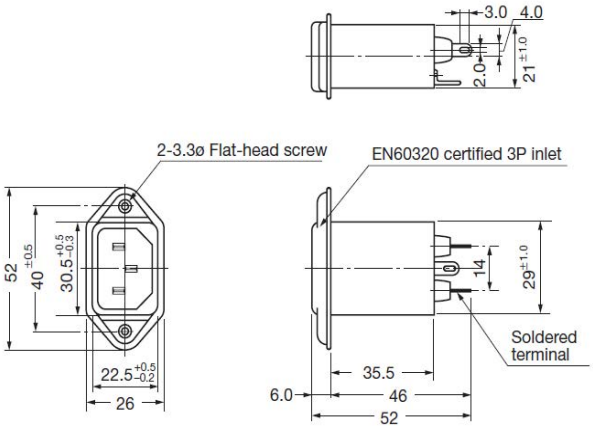
Installation Reference

1) For rear panel installation



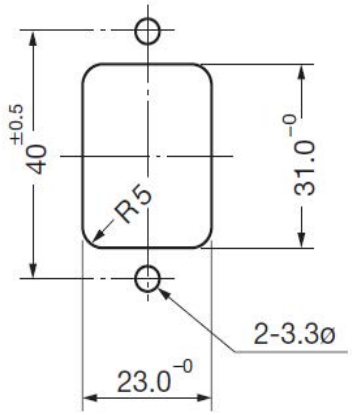
Dimensions – Millimeters cont.

GL-2**0F

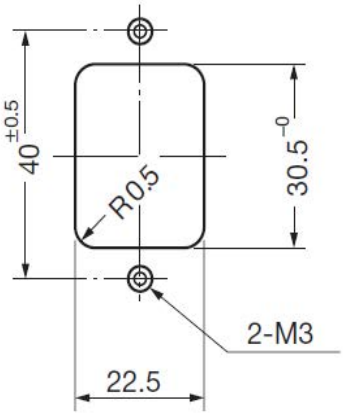


Installation Reference

1) For rear panel installation



2) For front panel installation

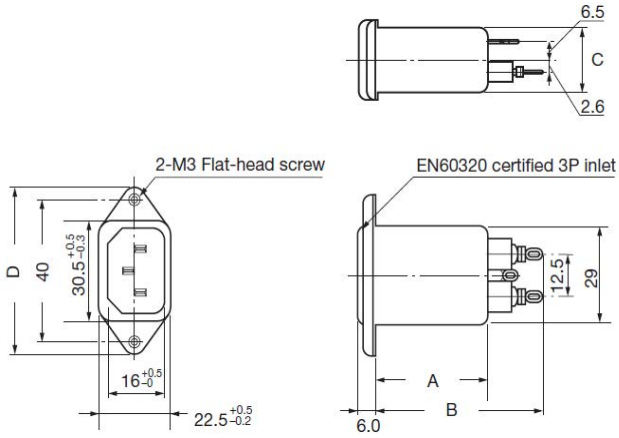


Recommended torque (N-m) maximum

- *Panel installation (M3: 0.78)*

Dimensions – Millimeters cont.

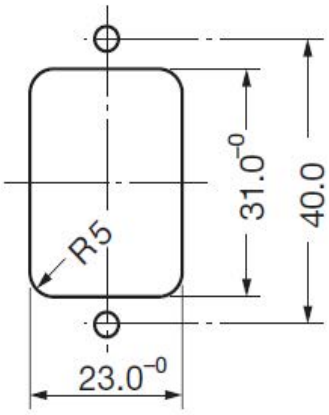
GL-2**0FV-10



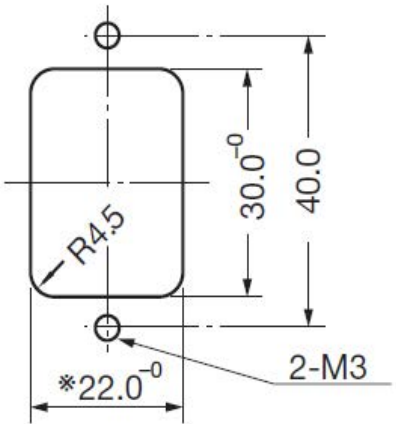
Part Type	A	B	C	D
GL-2**0FV-10	35.5	50.0	21.0	50.0

Installation Reference

1) For rear panel installation



2) For front panel installation

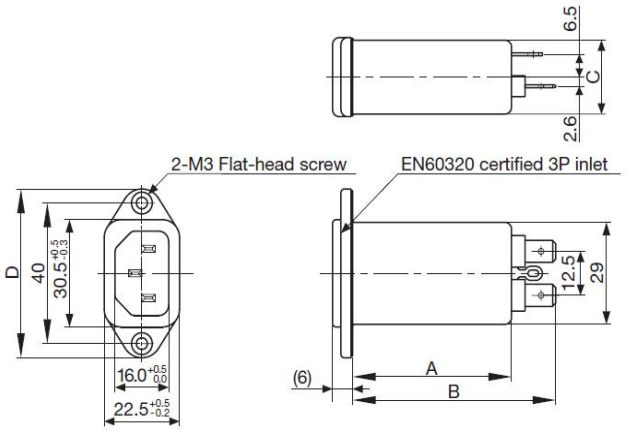


Recommended torque (N-m) maximum

- *Panel installation (M3: 0.78)*

Dimensions – Millimeters cont.

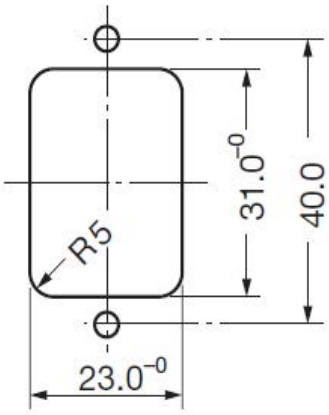
GL-2**0FV-30



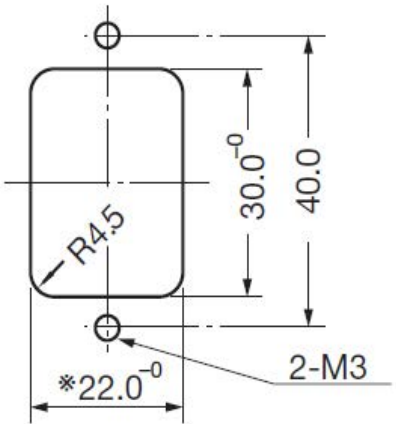
Part Type	A	B	C	D
GL-2**0FV-30	35.5	50.0	21.0	50.0

Installation Reference

1) For rear panel installation



2) For front panel installation

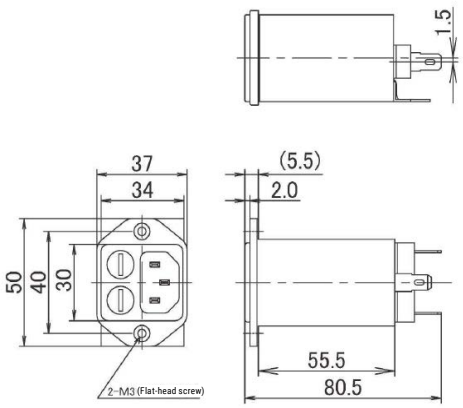


Recommended torque (N-m) maximum

- *Panel installation (M3: 0.78)*

Dimensions – Millimeters cont.

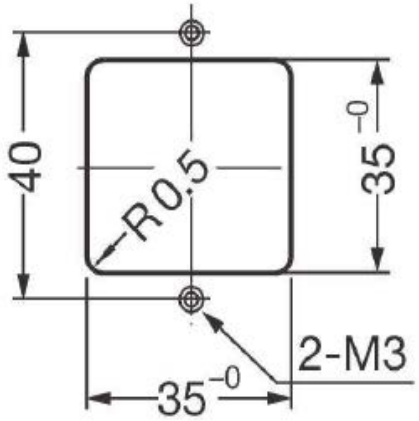
GL-2**0H2



Faston® is a registered trademark of Tyco Electronics AMP.

Installation Reference

For front panel installation

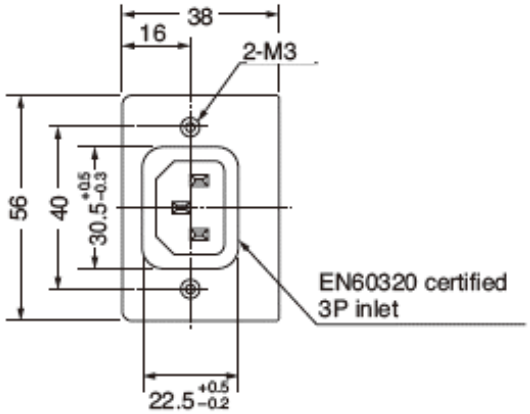


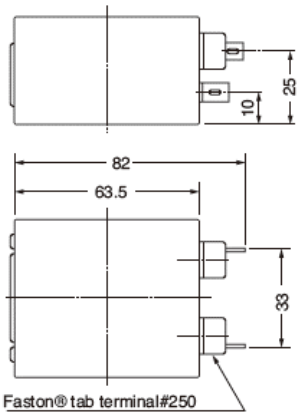
Recommended torque (N-m) maximum

- *Panel installation (M3: 0.50)*

Dimensions – Millimeters cont.

GL-2**0M

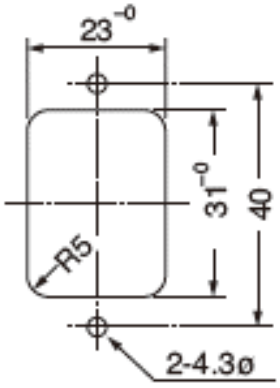




Faston® is a registered trademark of Tyco Electronics AMP.

Installation Reference

1) For rear panel installation



Recommended torque (N-m) maximum

- *Panel installation (M3: 0.735)*

Environmental Compliance

KEMET GL EMI-RFI Filters comply with EU RoHS Directive 2011/65/EU and (EU) 2015/863. Products that fall under the exemptions listed in below table are also included.

Part Number	RoHS Compliant	RoHS Exemption Code
GL-2030C-10	Yes	No
GL-2030C2	Yes	No
GL-2030C3	Yes	No
GL-2060C-10	Yes	No
GL-2060C-20	Yes	No
GL-2060C3	Yes	No
GL-2080C4	Yes	No
GL-2100C	Yes	No
GL-2100C1	Yes	No
GL-2150C-10	Yes	No
GL-2150C-30	Yes	No
GL-2030E	Yes	No
GL-2030ET	Yes	No
GL-2030F	Yes	No
GL-2060F	Yes	No
GL-2030FV-10	Yes	No
GL-2060FV-10	Yes	No
GL-2030FV-30	Yes	No
GL-2030H2	Yes	7(c)-I
GL-2060H2	Yes	7(c)-I
GL-2030M	Yes	7(c)-I
GL-2060M	Yes	7(c)-I
GL-2100M	Yes	7(c)-I

Code	Exemption
7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound

Approvals

Certification Body	File Number	Part Number
UL	E59551	GL-2030C-10, GL-2030C2, GL-2030C3, GL-2060C-10, GL-2060C-20, GL-2060C3, GL-2080C4, GL-2100C, GL-2100C1, GL-2150C-10, GL-2150C-30, GL-2030E, GL-2030ET, GL-2030F, GL-2060F, GL-2030FV-10, GL-2060FV-10, GL-2030FV-30, GL-2030M, GL-2060M and GL-2100M
CSA	LR50413	GL-2030C-10, GL-2030C2, GL-2030C3, GL-2060C-10, GL-2060C-20, GL-2060C3, GL-2080C4, GL-2100C, GL-2100C1, GL-2150C-10, GL-2150C-30, GL-2030E, GL-2030ET, GL-2030F, GL-2060F, GL-2030FV-10, GL-2060FV-10, GL-2030FV-30, GL-2030M, GL-2060M and GL-2100M
TÜV Rheinland Japan Ltd.	R50013349	GL-2030E
	R50013357	GL-2030C-10, GL-2030C2, GL-2030C3, GL-2060C-10, GL-2060C-20 and GL-2060C3
	R50013360	GL-2030F and GL-2060F
	R50013384	GL-2030M, GL-2060M and GL-2100M
	R50014166	GL-2080C4
	R50014260	GL-2100C and GL-2100C1
	R50014261	GL-2150C-10 and GL-2150C-30
	R50015796	GL-2030H2 and GL-2060H2
	R50015850	GL-2030FV-10, GL-2030FV-30 and GL-2060FV-10

Performance Characteristics

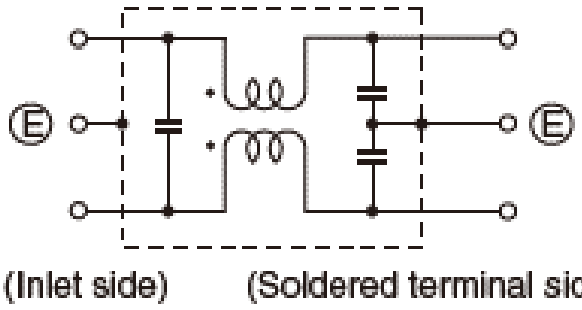
Item	Performance Characteristics
Rated Voltage	250 V
Rated Current Range	3 – 15 A
Withstanding Voltage	1,500 VAC (1 minute, line to ground)
Insulation Resistance	300 MΩ minimum at 500 VDC (1 minute, line to ground)
Leakage Current Range	0.005 – 0.500 mA maximum at 250 V/60 Hz
Input/Output Terminal Type	Inlet Solder terminal and Inlet Faston®
Operating Temperature Range	–25°C to +55°C (not including self temperature rise)

Table 1 – Ratings & Part Number Reference

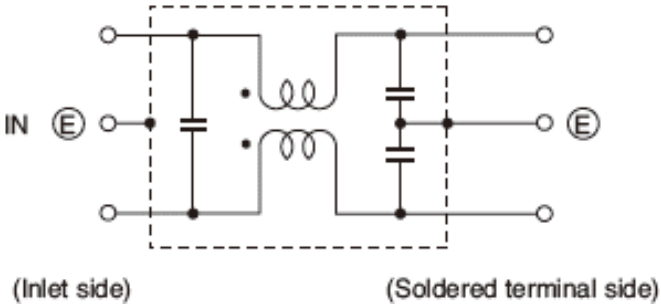
Part Number	Phase	Rated Voltage AC (V)	Rated Current AC (A)	Leakage Current at 250 V/60 Hz (mA) Maximum	Temperature Rise (K) Maximum	Operating Temperature Range	Terminal Type	Approval	Weight (g)
GL-2030C-10	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	55
GL-2030C2	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	55
GL-2030C3	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	55
GL-2060C-10	Single-phase	250	6	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	55
GL-2060C-20	Single-phase	250	6	0.500	30	−25°C to +55°C	Faston® (#187)	UL, CSA and TÜV	50
GL-2060C3	Single-phase	250	6	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	55
GL-2080C4	Single-phase	250	8	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	55
GL-2100C	Single-phase	250	10	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	55
GL-2100C1	Single-phase	250	10	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	53
GL-2150C-10	Single-phase	250	15	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	55
GL-2150C-30	Single-phase	250	15	0.500	30	−25°C to +55°C	Faston® (#250)	UL, CSA and TÜV	55
GL-2030E	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	40
GL-2030ET	Single-phase	250	3	0.005	30	−25°C to +55°C	Solder terminal	UL and CSA	35
GL-2030F	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	40
GL-2060F	Single-phase	250	6	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	40
GL-2030FV-10	Single-phase	250	3	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	40
GL-2060FV-10	Single-phase	250	6	0.500	30	−25°C to +55°C	Solder terminal	UL, CSA and TÜV	40
GL-2030FV-30	Single-phase	250	3	0.500	30	−25°C to +55°C	Faston® (#250)	UL, CSA and TÜV	42
GL-2030H2	Single-phase	250	3	0.500	30	−25°C to +55°C	Faston® (#250)	TÜV	90
GL-2060H2	Single-phase	250	6	0.500	30	−25°C to +55°C	Faston® (#250)	TÜV	90
GL-2030M	Single-phase	250	3	0.500	30	−25°C to +55°C	Faston® (#250)	UL, CSA and TÜV	200
GL-2060M	Single-phase	250	6	0.500	30	−25°C to +55°C	Faston® (#250)	UL, CSA and TÜV	205
GL-2100M	Single-phase	250	10	0.500	30	−25°C to +55°C	Faston® (#250)	UL, CSA and TÜV	210

Circuit Diagram

GL-2**0C*, GL-2**0E, GL-2**0F*

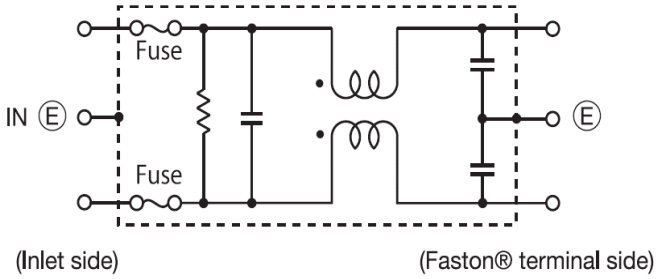


GL-2**0ET

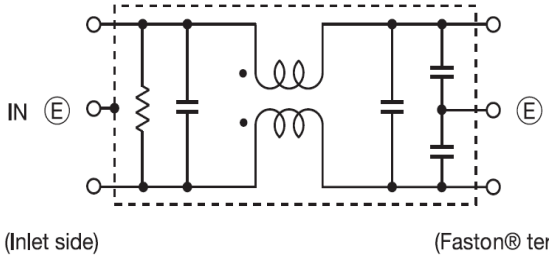


Circuit Diagram cont.

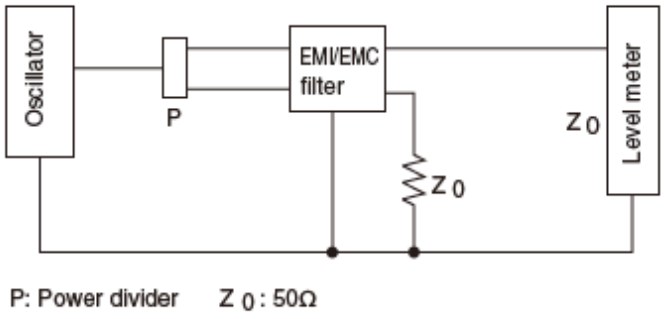
GL-2**0H2



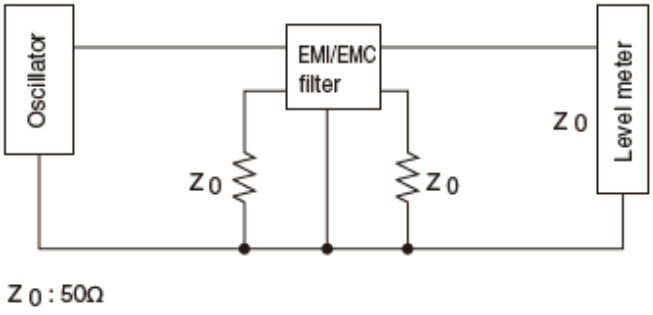
GL-2**0M



Measuring Circuit - Common Mode



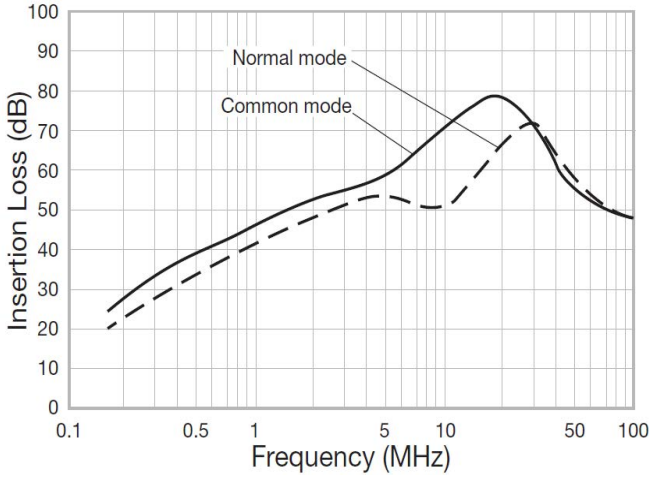
Measuring Circuit - Normal Mode[1]



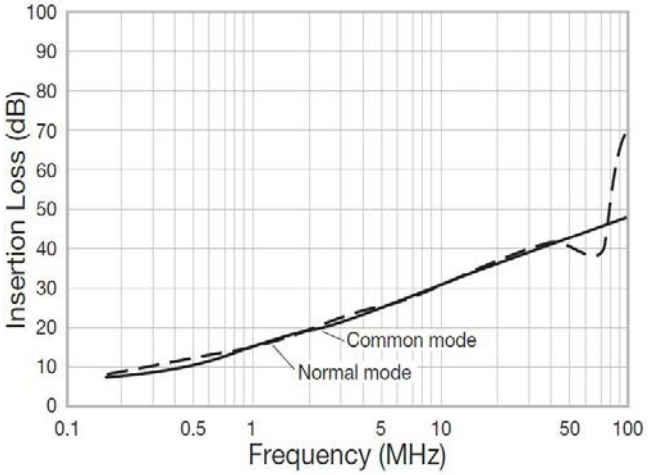
1 Not applicable: GL2150C-30, GL-2030E, GL-2030FV-10, GL-2060FV-10, GL-2030FV-30, GL-2030H2 and GL-2060H2

Attenuation (Static Characteristics)

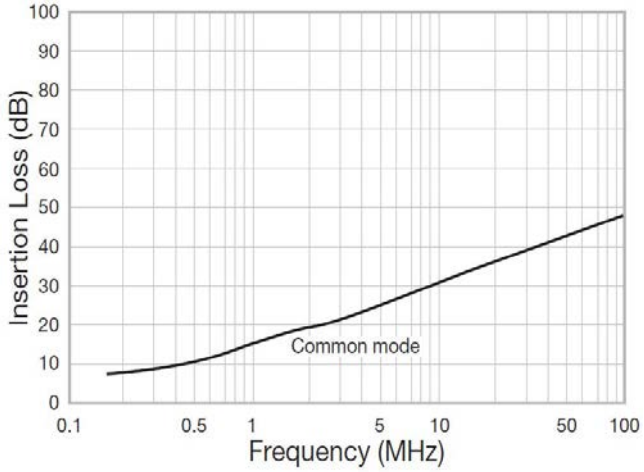
GL-2030C-10



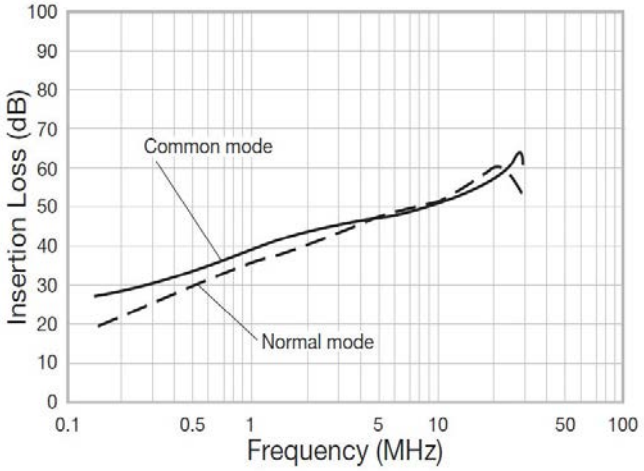
GL-2150C-10



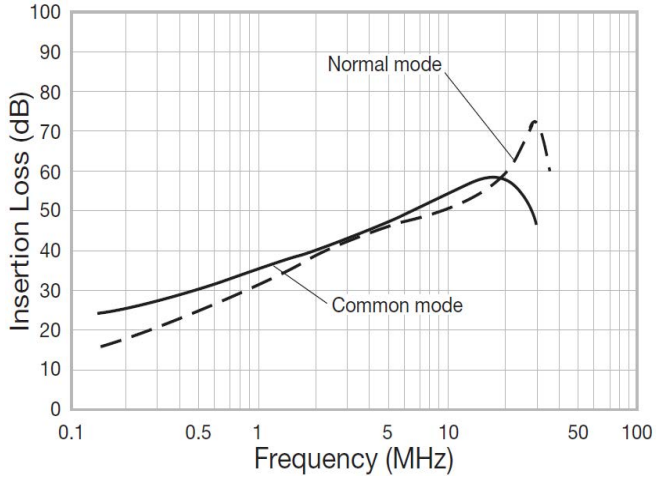
GL-2150C-30



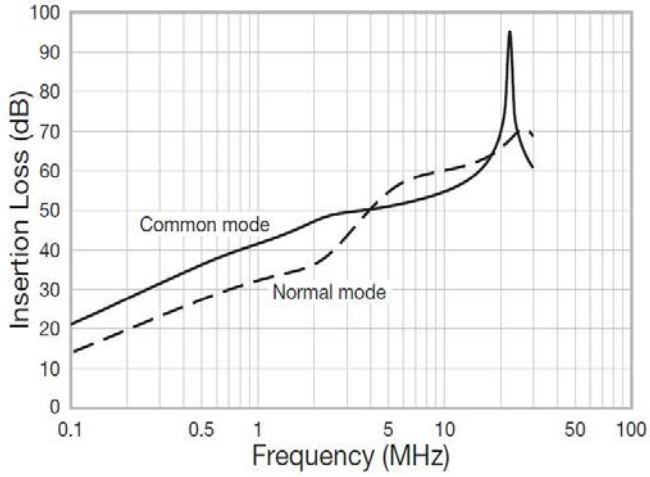
GL-2030C2



GL-2030C3

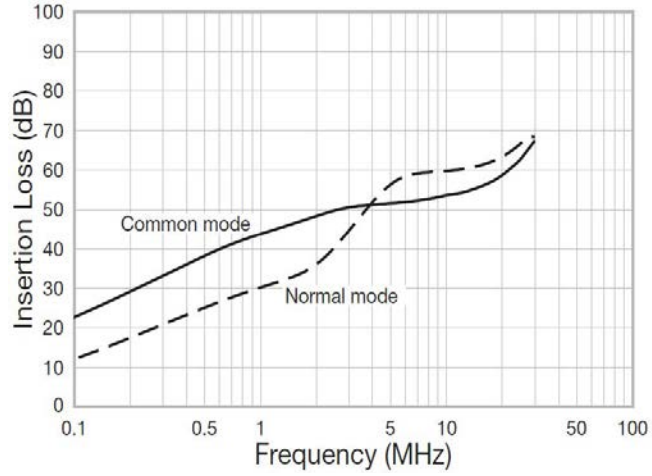


GL-2060C-10, GL-2060C-20

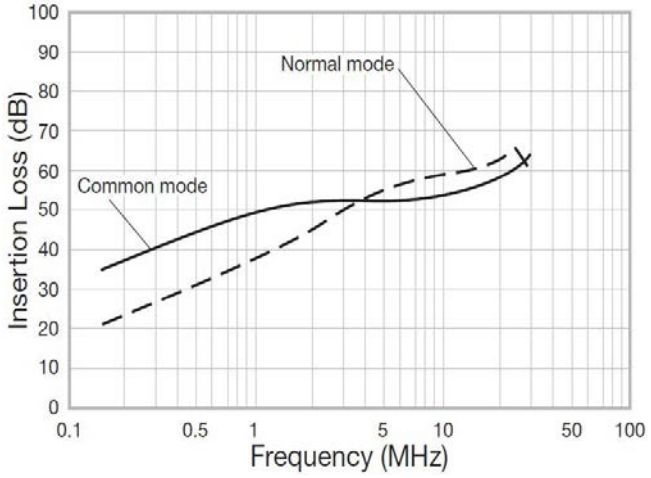


Attenuation (Static Characteristics) cont.

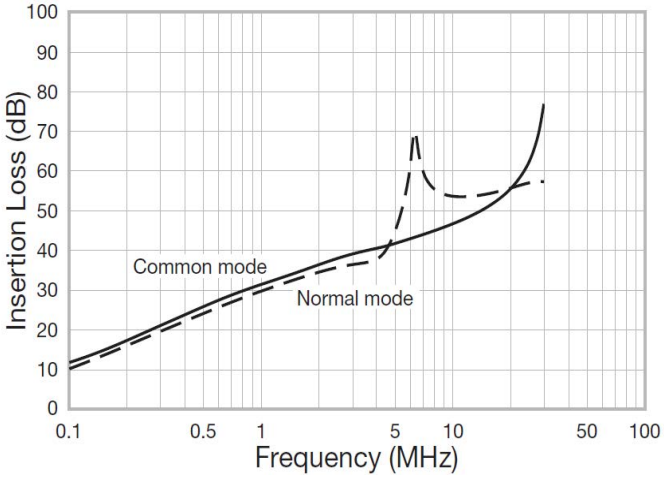
GL-2060C3



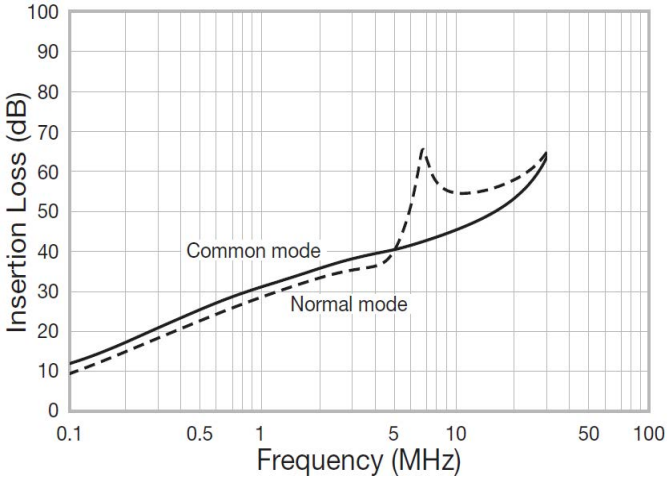
GL-2080C4



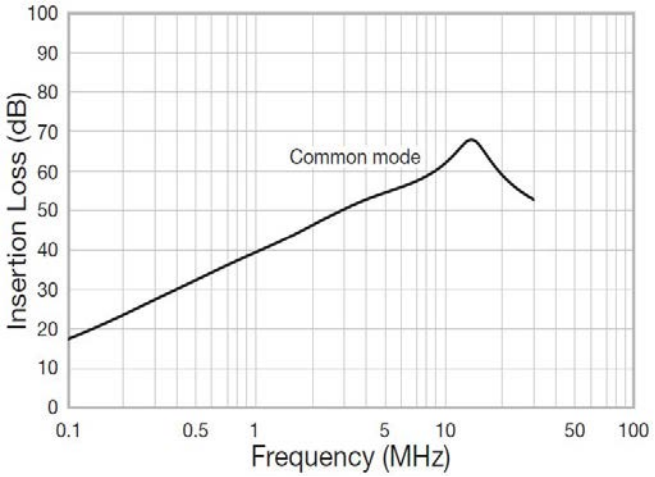
GL-2100C



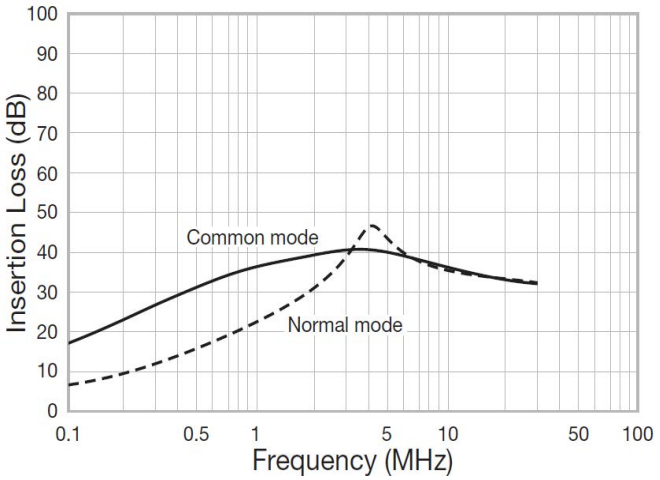
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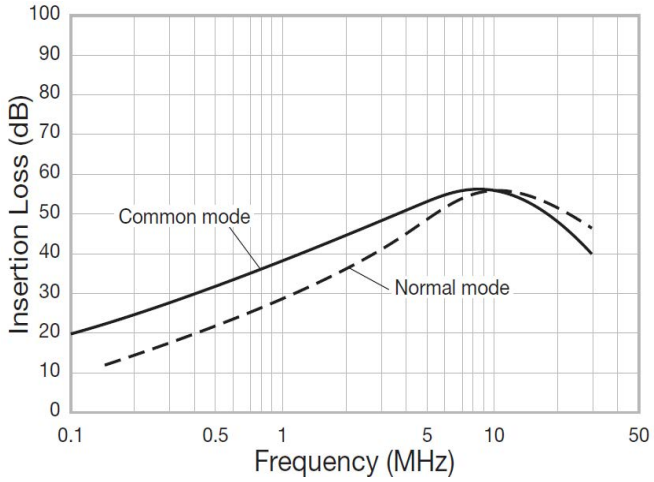


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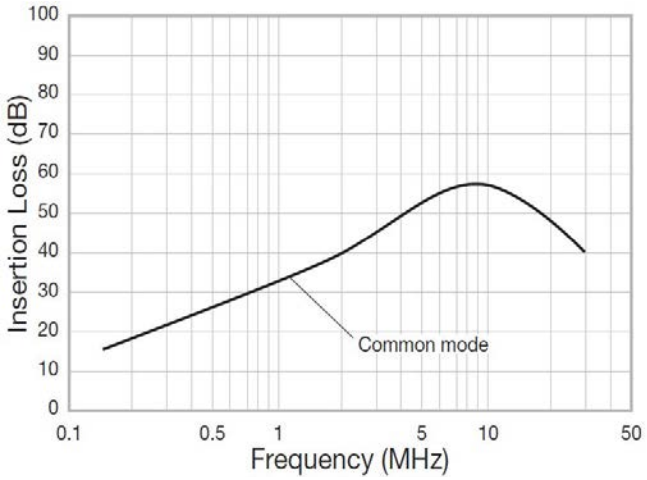


Attenuation (Static Characteristics) cont.

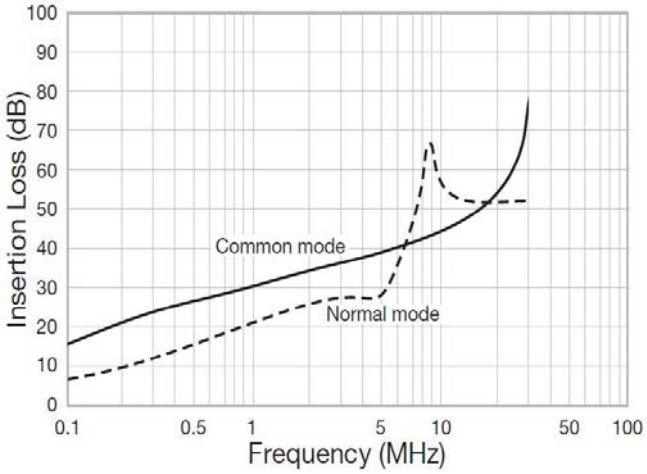
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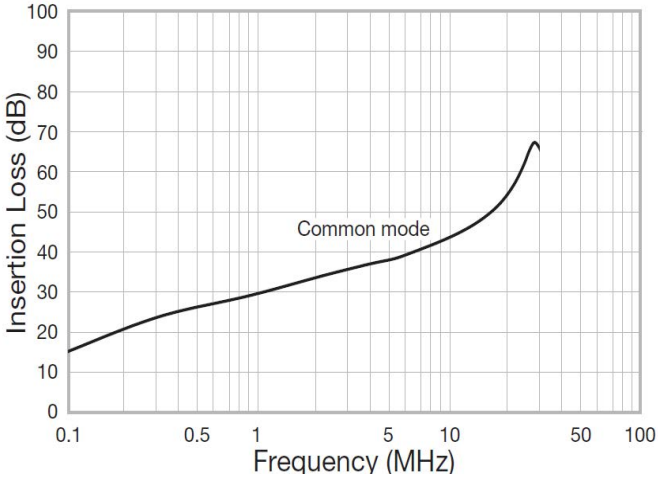
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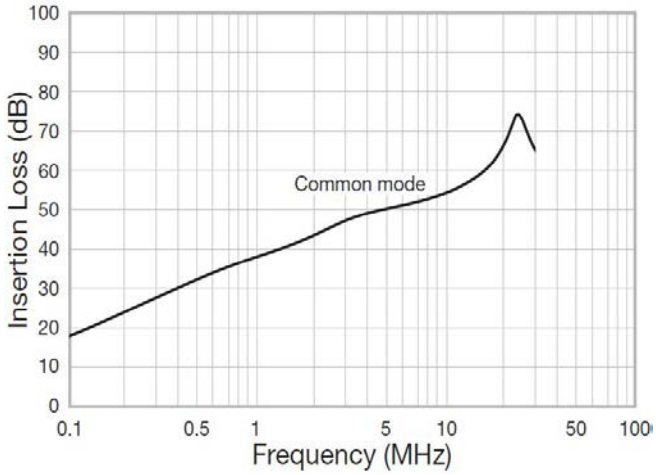
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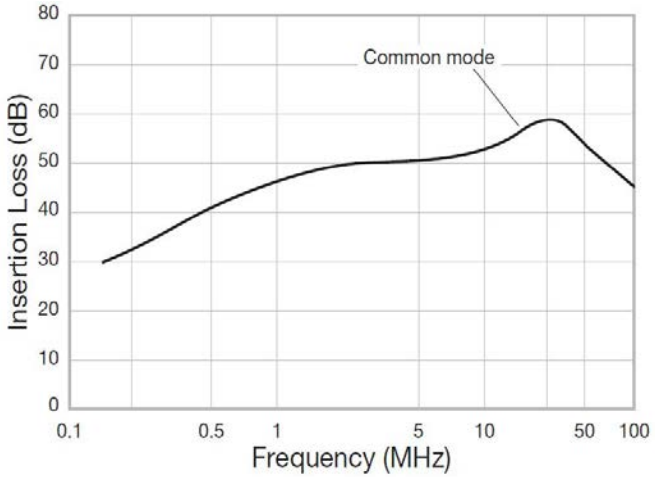
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GL-2030FV-30

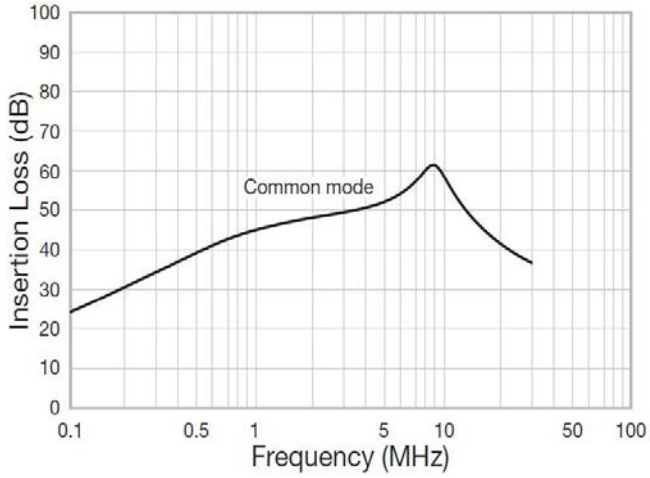


GL-2030H2

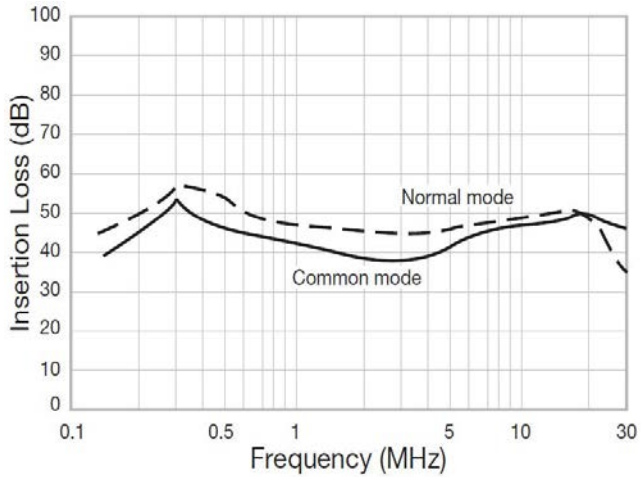


Attenuation (Static Characteristics) cont.

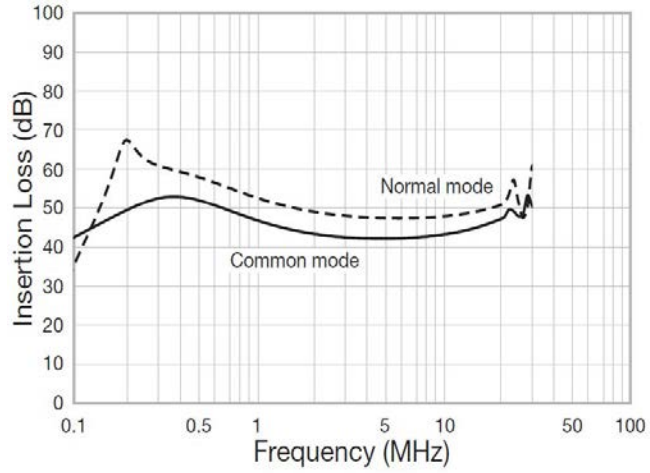
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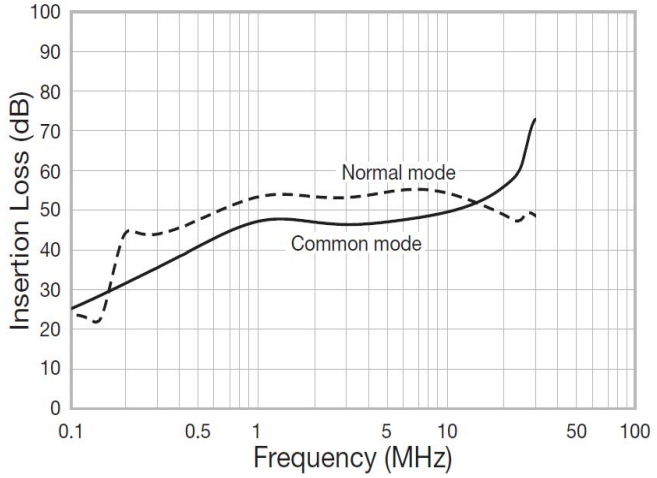
GL-2030M



GL-2060M



GL-2100M



Packaging

Part Type	Packaging Type	Pieces per Box
GL-2**0C*	Tray	25
GL-2**0E*		40
GL-2**0F		25
GL-2**0FV*		25
GL-2**0H2		20
GL-2**0M		8

Handling Precautions

Precautions for product storage

EMI-RFI Filters should be stored in normal working environments. While the filters themselves are quite robust in other environments, solderability will be degraded by exposure to high temperatures, high humidity, corrosive atmospheres, and long term storage.

KEMET recommends that maximum storage temperature not exceed 40°C and maximum storage humidity not exceed 70% relative humidity and atmospheres should be free of chlorine and sulfur bearing compounds. Temperature fluctuations should be minimized to avoid condensation on the parts. Also, avoid storage near strong magnetic fields as this might magnetize the product.

For the GL parts with solder terminals as categorized in Table 1 - Ratings & Part Number Reference, for optimized solderability, their stock should be used promptly, preferably within 6 months of receipt. For the other parts, having Faston® terminals, their stock should be used preferably within 12 months of receipt.

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C315C103K5R5TA7301 SSR21NV-05795 MPXV1D0830L1R0 MPXV1D0840LR22 T495D336K025ATE300 T520A227M2R5ATE035 ALA7DA221DD600 C0603C471K4RACTU C0603C472J5RACTU C0603C561JAGACTU R413I13304000M C0402C102J1GECTU C0402C106M9PACTU C0603C331G5GACTU C0805C103M5RACTU MPX1D0530LR68 T525B476M006ATE080 FT0H225ZF T356F336K010AT Z0805C431ASMST C1206C154K5RACTU SBC9-100-422 C0402C100J5HACAUTO C0603C470J1HACTU C1206C105M4RACTU C44ASGP4400ZA0J C0402C222K5RECAUTO CGP5C103MGWDAA7301 T494X686M025AT C1210C104K5HACAUTO