

# Ultra-Broadband SMT Inductor



## GLMR47KAT1A

AVX, the industry leader, in introducing the new GLM Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

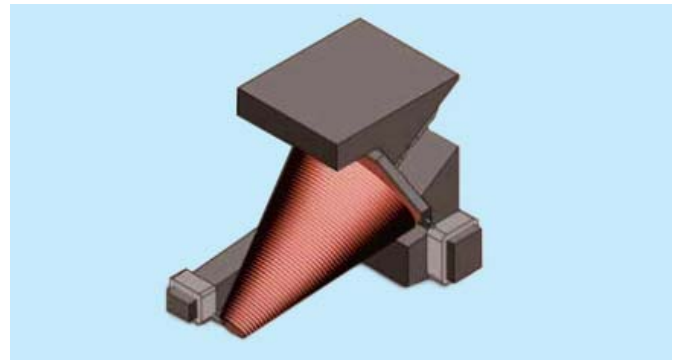
The GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency: 9.5 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.5$  dB, typ.
- Return Loss (shunt mounted):  $> 20$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $0.47 \mu\text{H} \pm 10\%$
- Rated Current ( $I_{\text{DC max.}}$ ): 815 mA\*
- Resistance ( $I_{\text{DC max.}}$ ):  $0.19 \Omega$ , typ. at  $+20^{\circ}\text{C}$ , 10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

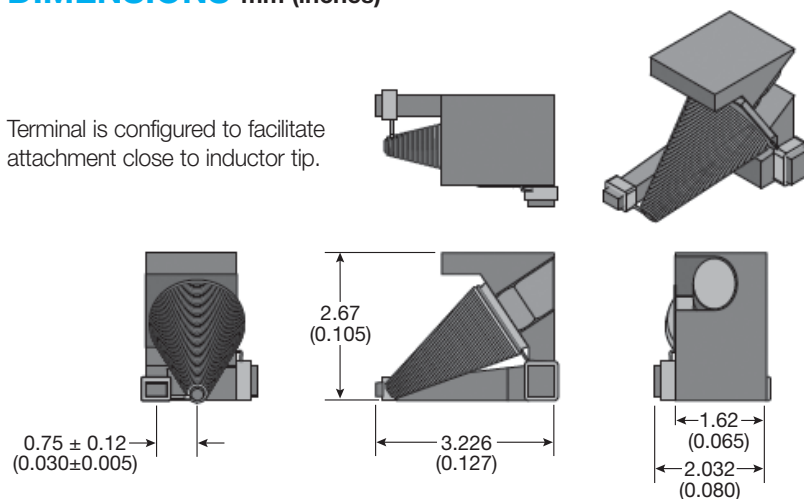
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

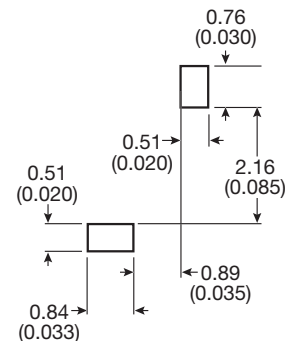
Wire: Copper, plated with gold  $20 \mu\text{in.} \pm 5 \mu\text{in.}$

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
M	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	38	22

# Ultra-Broadband SMT Inductor

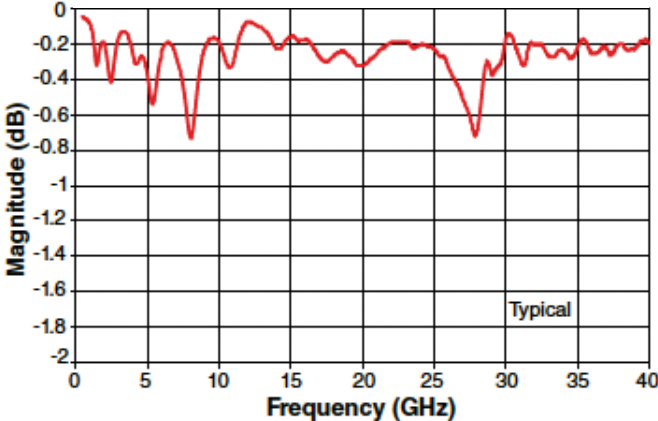


## GLMR47KAT1A

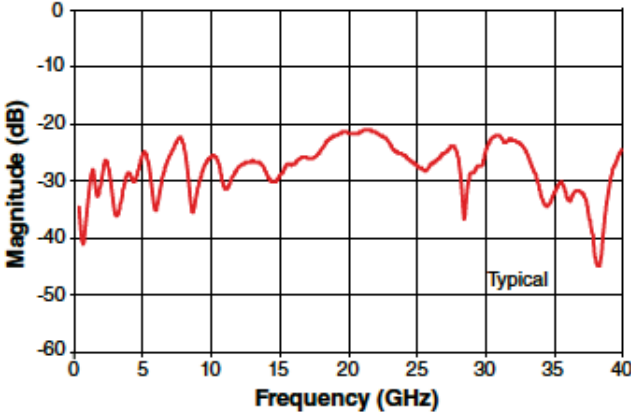
### HOW TO ORDER

<b>GL</b>   Series	<b>M</b>   Case Size	<b>R47</b>   Inductance Code ( $\mu\text{H}$ ) 3 significant digits for inductance R = Decimal point	<b>K</b>   Inductance Tolerance $\pm 10\%$	<b>A</b>   Failure Rate	<b>T</b>   Termination T = Tin Termination	<b>1A</b>   Packaging 1A = Tape & Reel
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### Insertion Loss (S21)



### Return Loss (S11)



# Ultra-Broadband SMT Inductor



## GLMR70KAT1A

AVX, the industry leader, in introducing the new GLM Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

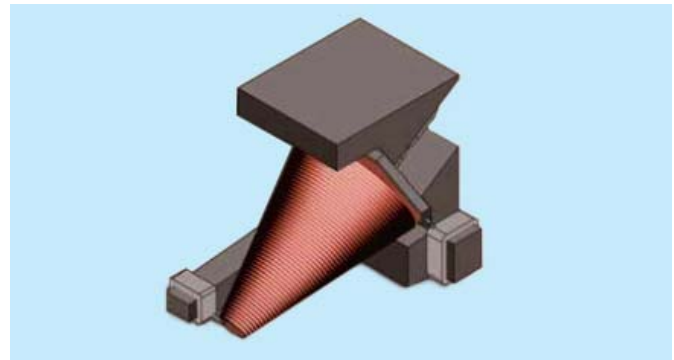
The GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency: 6.6 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.5$  dB, typ.
- Return Loss (shunt mounted):  $> 20$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $0.70 \mu\text{H} \pm 10\%$
- Rated Current ( $I_{\text{DC max.}}$ ): 619 mA\*
- Resistance ( $I_{\text{DC max.}}$ ):  $0.32 \Omega$ , typ. at  $+20^{\circ}\text{C}$ , 10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

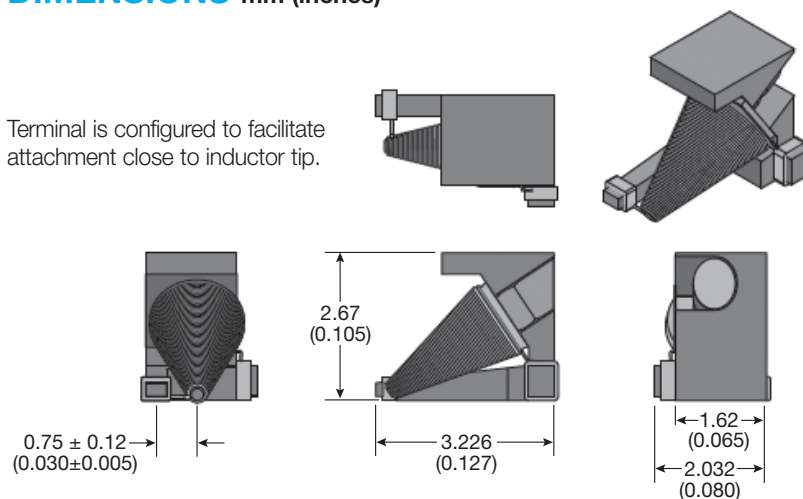
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

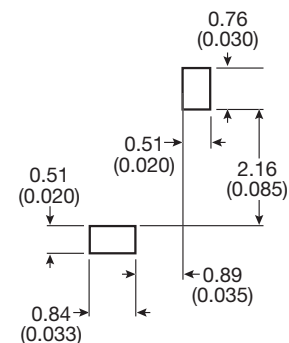
Wire: Copper, plated with gold  $20 \mu\text{in.} \pm 5 \mu\text{in.}$

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
M	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	40	27

# Ultra-Broadband SMT Inductor

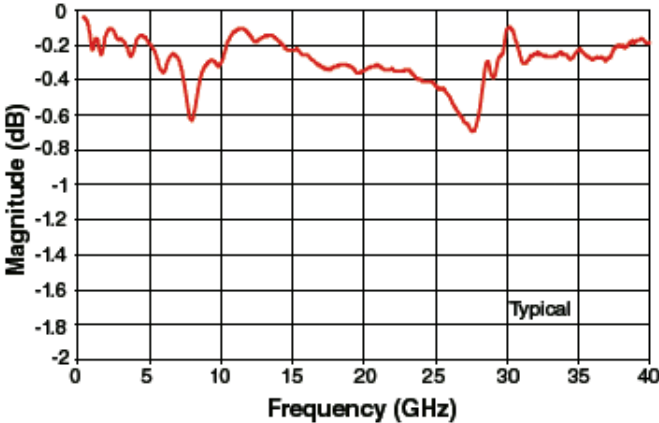


## GLMR70KAT1A

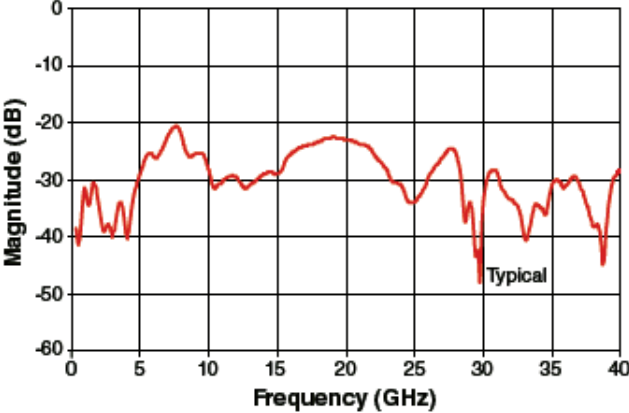
### HOW TO ORDER

<b>GL</b>   Series	<b>M</b>   Case Size	<b>R70</b>   Inductance Code ( $\mu\text{H}$ ) 3 significant digits for inductance R = Decimal point	<b>K</b>   Inductance Tolerance $\pm 10\%$	<b>A</b>   Failure Rate	<b>T</b>   Termination T = Tin Termination	<b>1A</b>   Packaging 1A = Tape & Reel
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Insertion Loss (S21)



Return Loss (S11)



# Ultra-Broadband SMT Inductor



## GLM1R1KAT1A

AVX, the industry leader, in introducing the new GLM Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

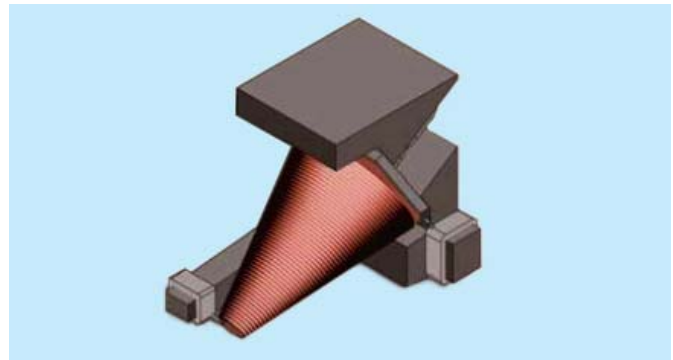
The GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency: 3.3 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.6$  dB, typ.
- Return Loss (shunt mounted):  $> 22$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $1.10 \mu\text{H} \pm 10\%$
- Rated Current ( $I_{\text{DC max.}}$ ): 438 mA\*
- Resistance ( $I_{\text{DC max.}}$ ):  $0.64 \Omega$ , typ. at  $+20^{\circ}\text{C}$ , 10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

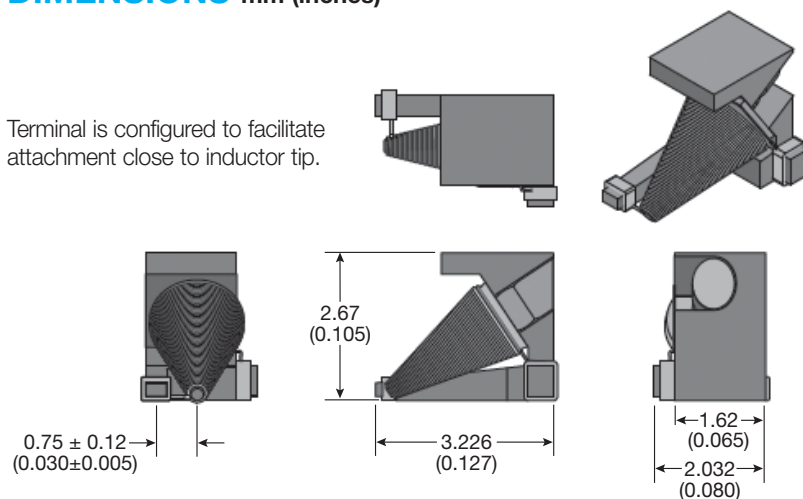
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

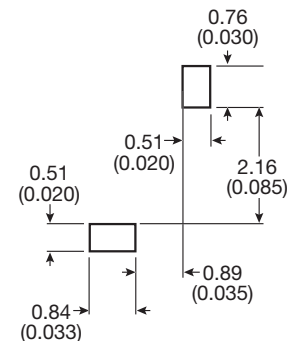
Wire: Copper, plated with gold  $20 \mu\text{in.} \pm 5 \mu\text{in.}$

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
M	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	42	34

# Ultra-Broadband SMT Inductor

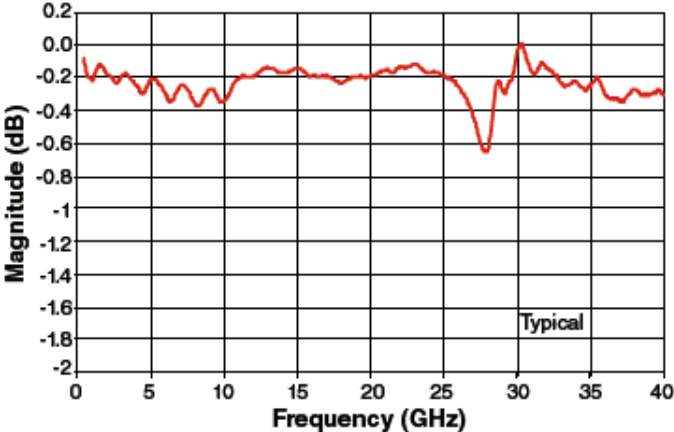


## GLM1R1KAT1A

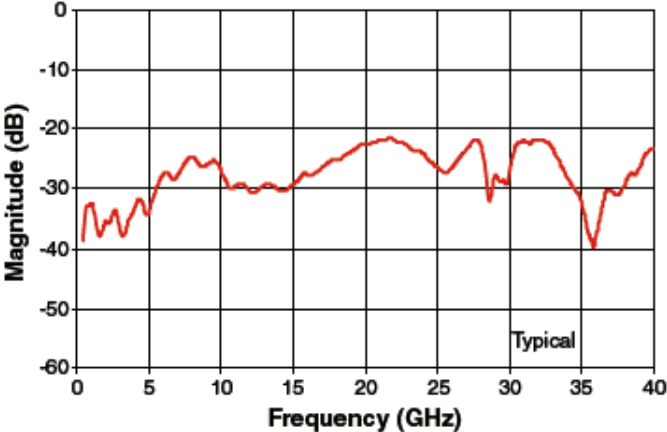
### HOW TO ORDER

<b>GL</b>   Series	<b>M</b>   Case Size	<b>1R1</b>   Inductance Code ( $\mu$ H) 3 significant digits for inductance R = Decimal point	<b>K</b>   Inductance Tolerance $\pm 10\%$	<b>A</b>   Failure Rate	<b>T</b>   Termination T = Tin Termination	<b>1A</b>   Packaging 1A = Tape & Reel
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Insertion Loss (S21)



Return Loss (S11)



# Ultra-Broadband SMT Inductor



## GLM2R0KAT1A

AVX, the industry leader, in introducing the new GLM Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

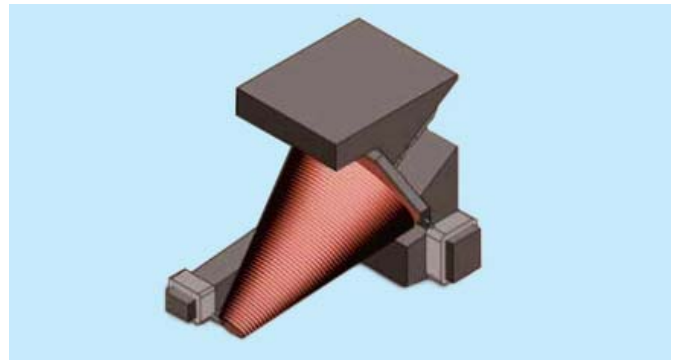
The GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency: 2.1 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.4$  dB, typ.
- Return Loss (shunt mounted):  $> 20$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $2.00 \mu\text{H} \pm 10\%$
- Rated Current ( $I_{\text{DC max.}}$ ):  $277 \text{ mA}^*$
- Resistance ( $I_{\text{DC max.}}$ ):  $1.60 \Omega$ , typ. at  $+20^{\circ}\text{C}$ , 10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

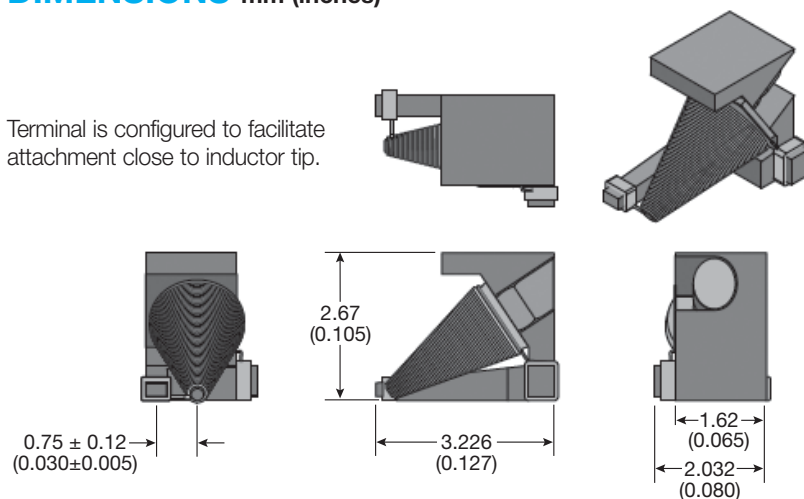
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

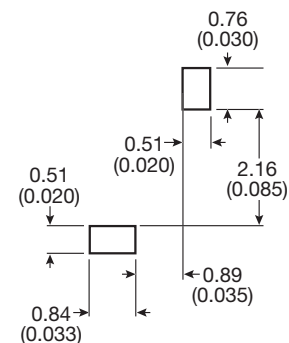
Wire: Copper, plated with gold  $20 \mu\text{in.} \pm 5 \mu\text{in.}$

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
M	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	44	46

# Ultra-Broadband SMT Inductor

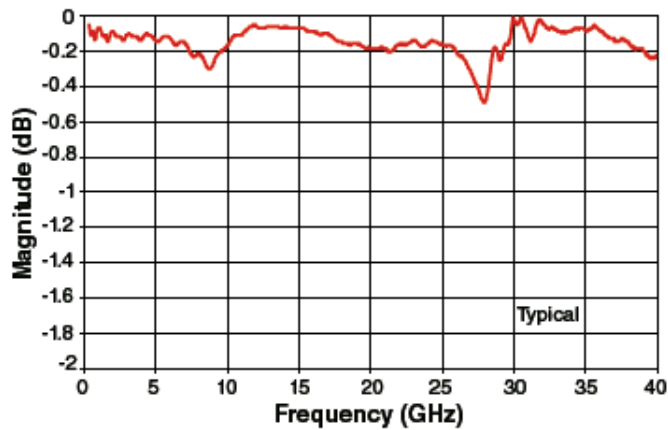


## GLM2R0KAT1A

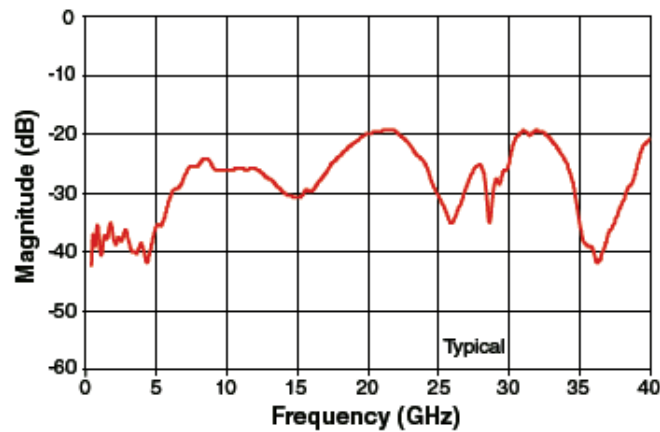
### HOW TO ORDER

<b>GL</b>   Series	<b>M</b>   Case Size	<b>2R0</b>   Inductance Code ( $\mu$ H) 3 significant digits for inductance R = Decimal point	<b>K</b>   Inductance Tolerance $\pm 10\%$	<b>A</b>   Failure Rate	<b>T</b>   Termination T = Tin Termination	<b>1A</b>   Packaging 1A = Tape & Reel
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### Insertion Loss (S21)



### Return Loss (S11)





# Ultra-Broadband SMT Inductor



## GLM3R8KAT1A

AVX, the industry leader, in introducing the new GLM Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

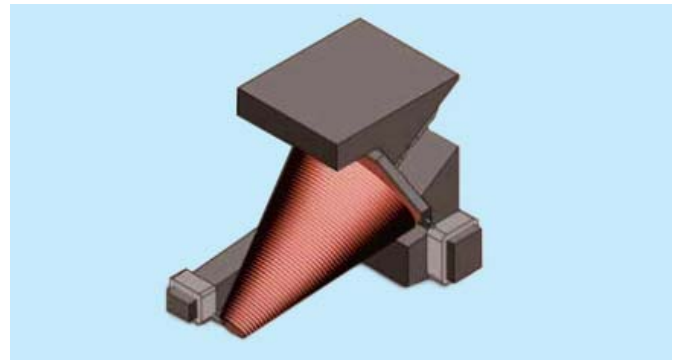
The GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency:  
1.1 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.4$  dB, typ.
- Return Loss (shunt mounted):  $> 25$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $3.8 \mu\text{H} \pm 10\%$
- Rated Current ( $I_{\text{DC max.}}$ ): 182 mA\*
- Resistance ( $I_{\text{DC max.}}$ ):  $3.70 \Omega$ , typ. at  $+20^{\circ}\text{C}$ , 10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

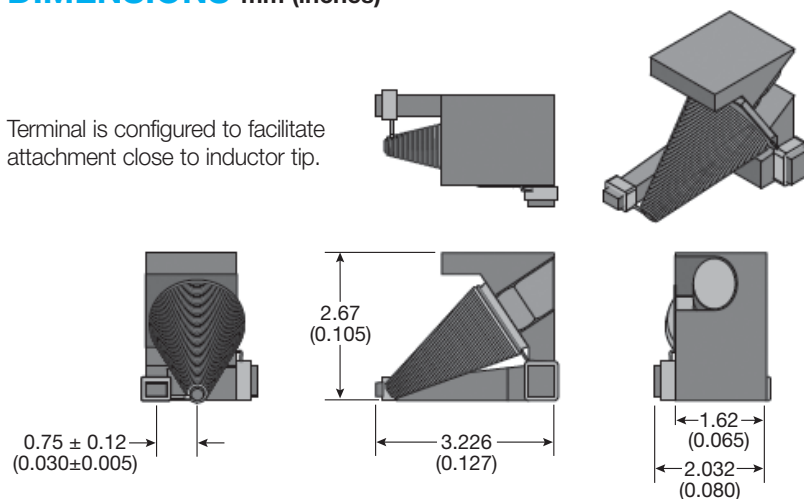
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

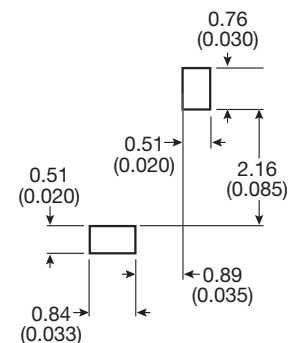
Wire: Copper, plated with gold  $20 \mu\text{in.} \pm 5 \mu\text{in.}$

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Turns
M	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	47	60

# Ultra-Broadband SMT Inductor

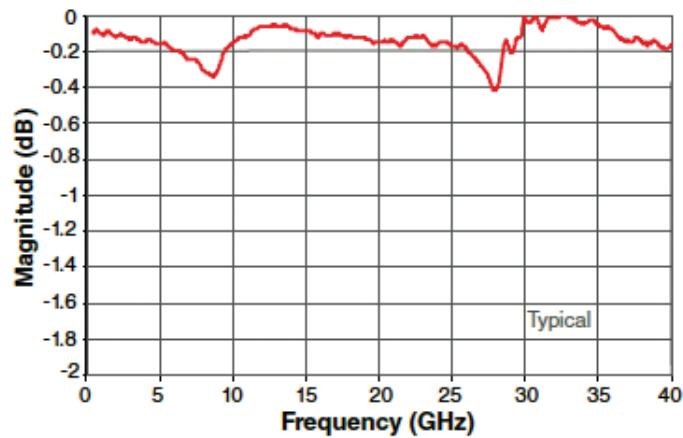


## GLM3R8KAT1A

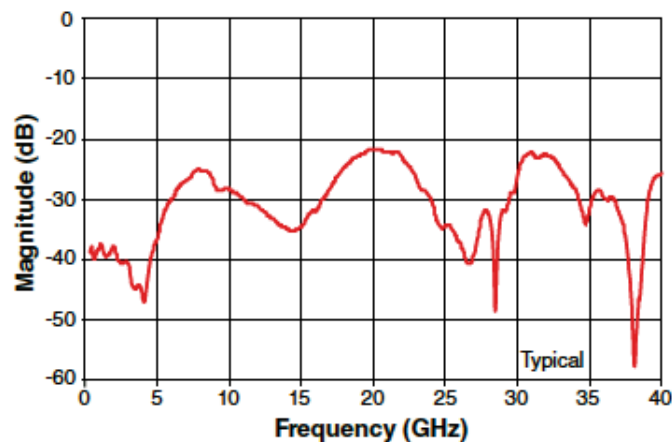
### HOW TO ORDER

<b>GL</b>	<b>M</b>	<b>3R8</b>	<b>K</b>	<b>A</b>	<b>T</b>	<b>1A</b>
Series	Case Size	Inductance Code ( $\mu\text{H}$ ) 3 significant digits for inductance R = Decimal point	Inductance Tolerance $\pm 10\%$	Failure Rate	Termination T = Tin Termination	Packaging 1A = Tape & Reel

### Insertion Loss (S21)



### Return Loss (S11)



# Ultra-Broadband SMT Inductor



## GLN1R47KAT1A

AVX, the industry leader, is introducing the new GLN Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

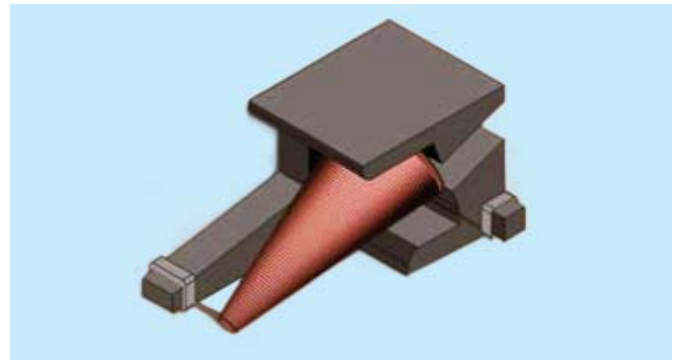
The GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency: 2.8 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.4$  dB, typ.
- Return Loss (shunt mounted):  $> 17$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $1.47 \mu\text{H} \pm 10\%$
- Rated Current ( $I_{\text{DC max.}}$ ): 694 mA\*
- Resistance ( $I_{\text{DC max.}}$ ):  $0.33 \Omega$ , typ. at  $+20^{\circ}\text{C}$ , 10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

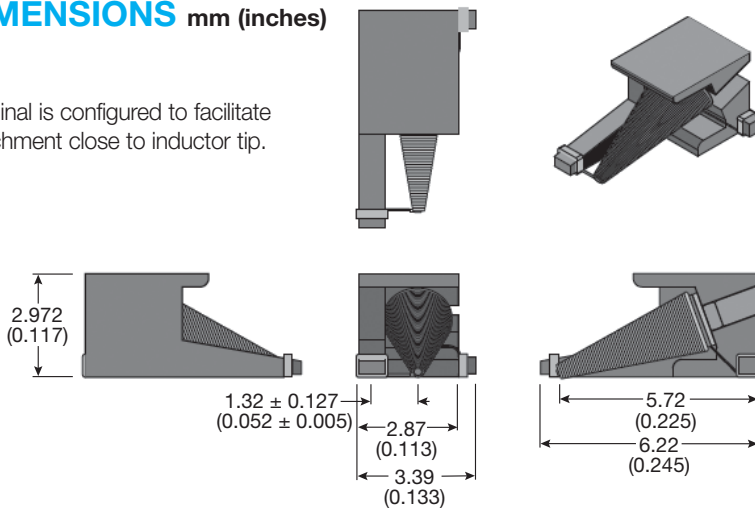
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

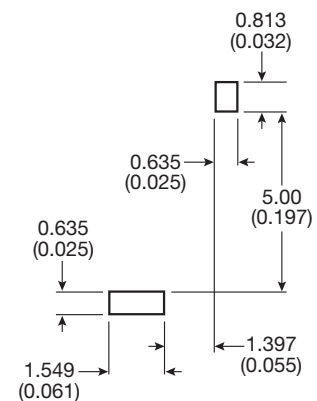
Wire: Copper, plated with gold  $20 \mu\text{in.} \pm 5 \mu\text{in.}$

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
N	6.223 (0.245)	3.378 (0.133)	2.972 (0.117)	38	40

# Ultra-Broadband SMT Inductor

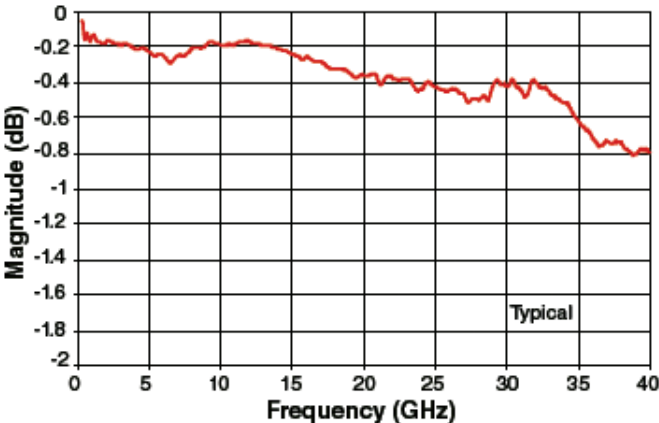


## GLN1R47KAT1A

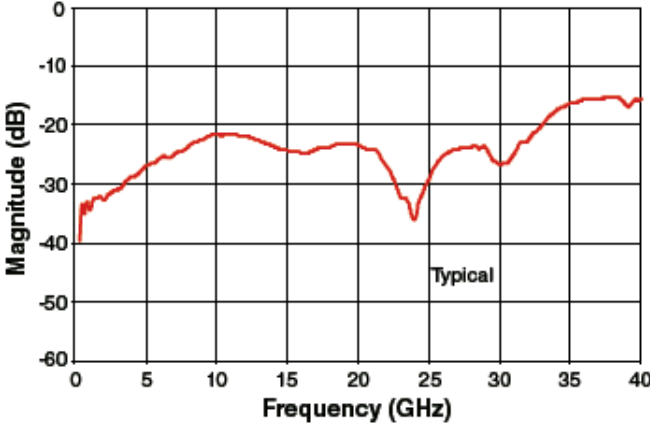
### HOW TO ORDER

<b>GL</b>	<b>N</b>	<b>1R47</b>	<b>K</b>	<b>A</b>	<b>T</b>	<b>1A</b>
Series	Case Size	Inductance Code ( $\mu\text{H}$ )	Inductance Tolerance	Failure Rate	Termination	Packaging
		3 significant digits for inductance R = Decimal point	$\pm 10\%$		T = Tin Termination	1A = Tape & Reel

### Insertion Loss (S21)



### Return Loss (S11)



# Ultra-Broadband SMT Inductor



## GLN2R0KAT1A

AVX, the industry leader, in introducing the new GLN Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

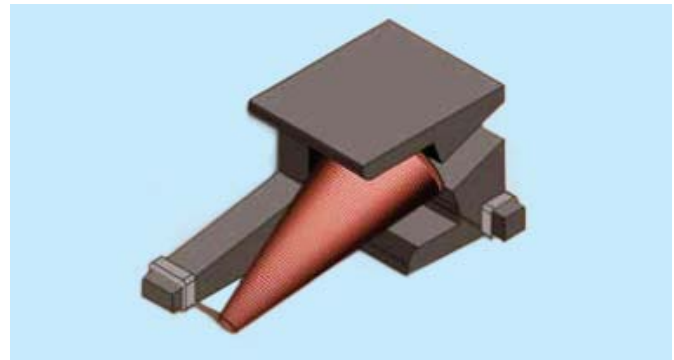
The GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency: 1.6 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.5$  dB, typ.
- Return Loss (shunt mounted):  $> 17$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $2.00 \mu\text{H} \pm 10\%$
- Rated Current ( $I_{\text{DC max.}}$ ):  $494 \text{ mA}^*$
- Resistance ( $I_{\text{DC max.}}$ ):  $0.65 \Omega$ , typ. at  $+20^{\circ}\text{C}$ , 10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

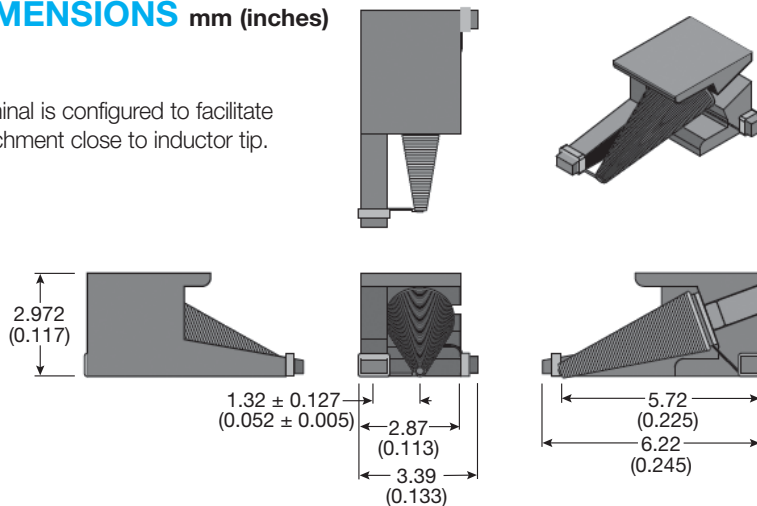
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

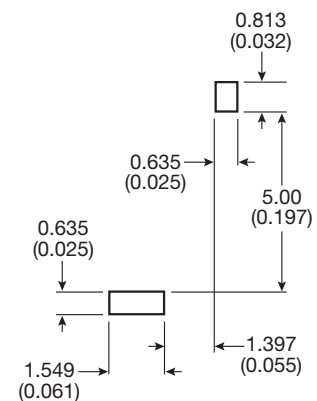
Wire: Copper, plated with gold  $20 \mu\text{in.} \pm 5 \mu\text{in.}$

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Turns
N	6.223 (0.245)	3.378 (0.133)	2.972 (0.117)	40	48

# Ultra-Broadband SMT Inductor

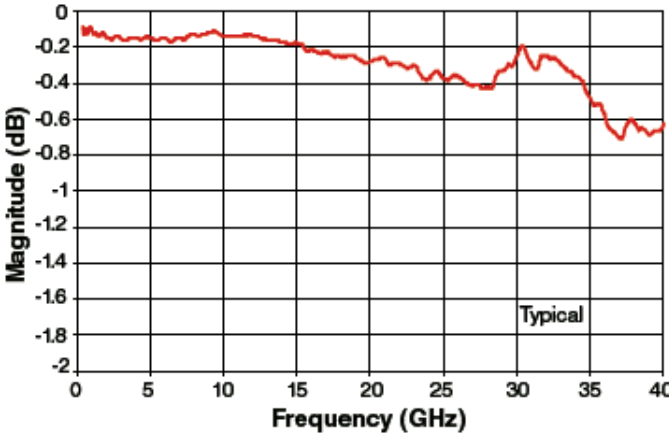


GLN2R0KAT1A

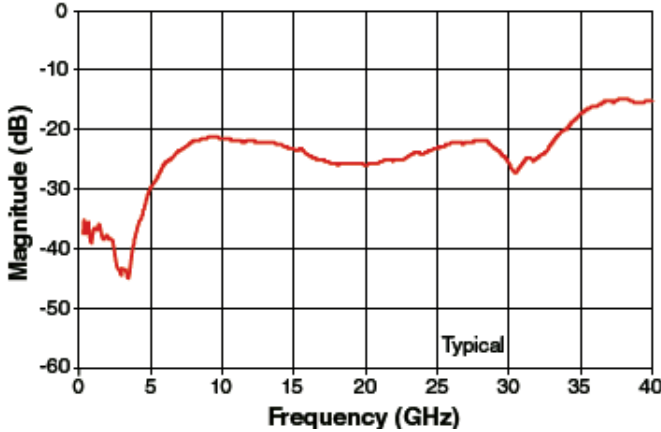
## HOW TO ORDER

<b>GL</b>	<b>N</b>	<b>2R0</b>	<b>K</b>	<b>A</b>	<b>T</b>	<b>1A</b>
Series	Case Size	Inductance Code ( $\mu\text{H}$ ) 3 significant digits for inductance R = Decimal point	Inductance Tolerance $\pm 10\%$	Failure Rate	Termination T = Tin Termination	Packaging 1A = Tape & Reel

Insertion Loss (S21)



Return Loss (S11)



# Ultra-Broadband SMT Inductor



## GLN3R3KAT1A

AVX, the industry leader, in introducing the new GLN Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

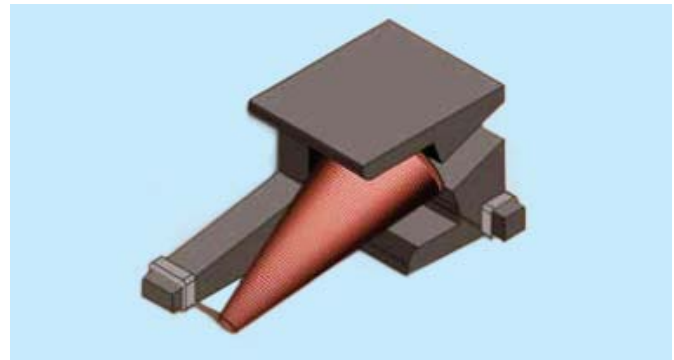
The GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency:  
1.3 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.5$  dB, typ.
- Return Loss (shunt mounted):  $> 17$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $3.30 \mu\text{H} \pm 10\%$
- Rated Current ( $I_{\text{DC max.}}$ ):  $350 \text{ mA}^*$
- Resistance ( $I_{\text{DC max.}}$ ):  $1.29 \Omega$ , typ. at  $+20^{\circ}\text{C}$ ,  
10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

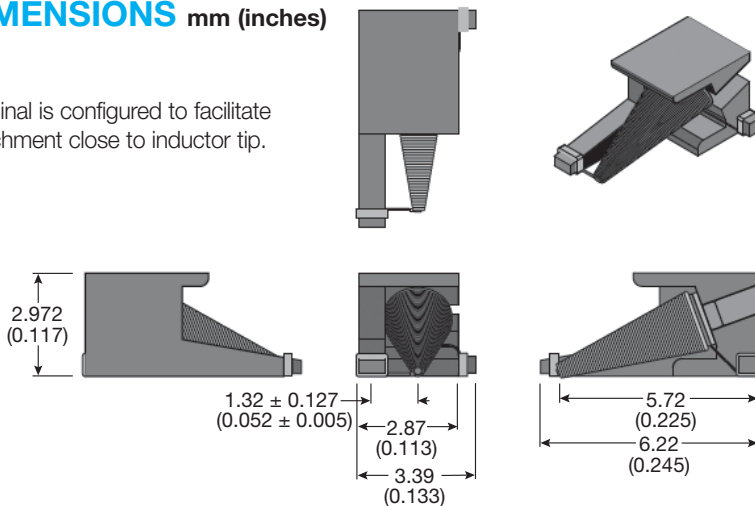
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

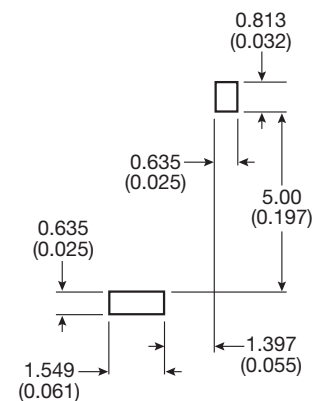
Wire: Copper, plated with gold  $20 \mu\text{in.} \pm 5 \mu\text{in.}$

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Turns
N	6.223 (0.245)	3.378 (0.133)	2.972 (0.117)	42	60

# Ultra-Broadband SMT Inductor

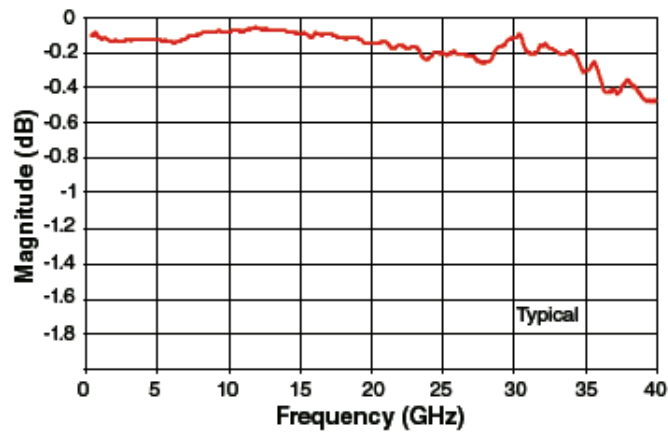


## GLN3R3KAT1A

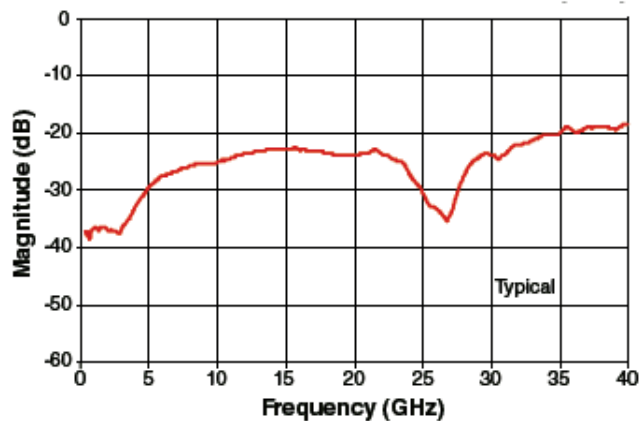
### HOW TO ORDER

<b>GL</b>	<b>N</b>	<b>3R3</b>	<b>K</b>	<b>A</b>	<b>T</b>	<b>1A</b>
Series	Case Size	Inductance Code ( $\mu\text{H}$ )	Inductance Tolerance	Failure Rate	Termination	Packaging
		3 significant digits for inductance R = Decimal point	$\pm 10\%$		T = Tin Termination	1A = Tape & Reel

### Insertion Loss (S21)



### Return Loss (S11)





# Ultra-Broadband SMT Inductor



## GLN6R0KAT1A

AVX, the industry leader, in introducing the new GLN Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

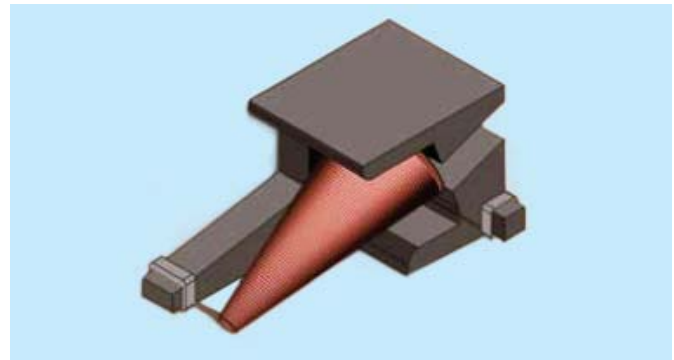
The GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency: 700 KHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.4$  dB, typ.
- Return Loss (shunt mounted):  $> 48$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $6.00 \mu\text{H}$ , typ.
- Rated Current ( $I_{\text{DC max.}}$ ):  $236 \text{ mA}^*$
- Resistance ( $I_{\text{DC max.}}$ ):  $2.85 \Omega$ , typ. at  $+20^{\circ}\text{C}$ , 10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

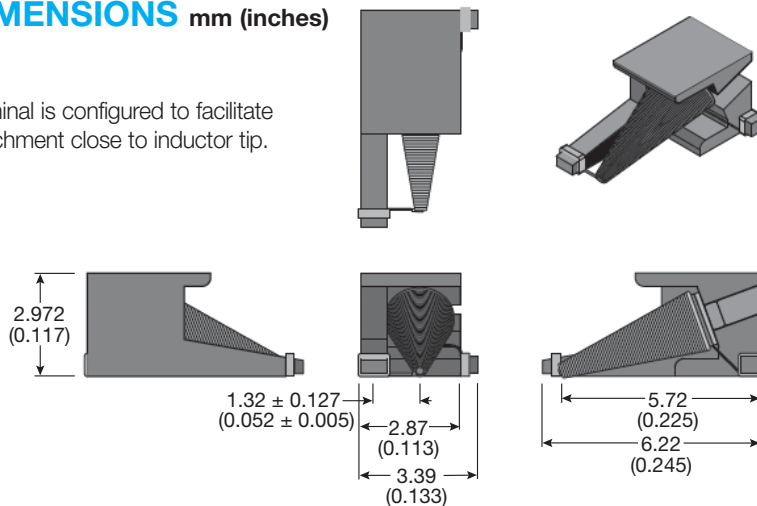
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

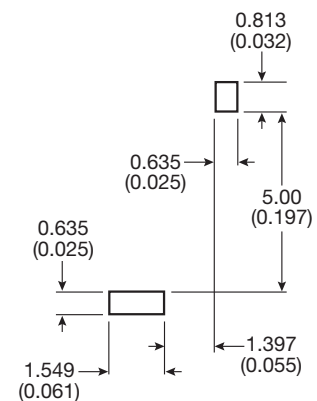
Wire: Copper, plated with gold  $20 \mu\text{in}$ .  $\pm 5 \mu\text{in}$ .

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
N	6.223 (0.245)	3.378 (0.133)	2.972 (0.117)	44	78

# Ultra-Broadband SMT Inductor

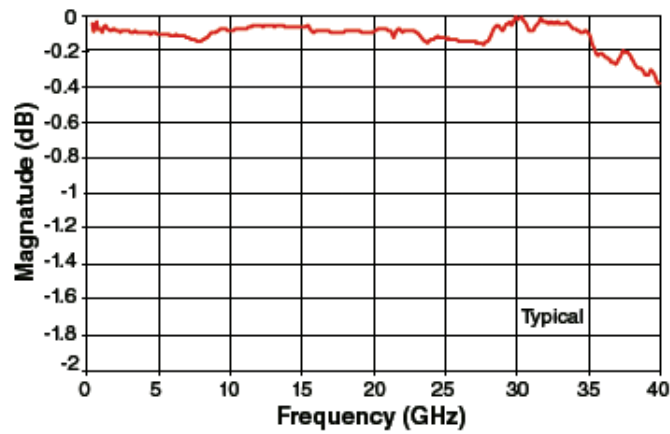


## GLN6R0KAT1A

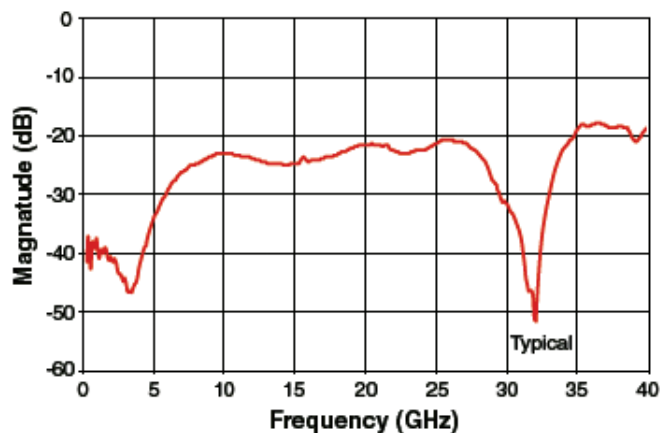
### HOW TO ORDER

<b>GL</b>	<b>N</b>	<b>6R0</b>	<b>K</b>	<b>A</b>	<b>T</b>	<b>1A</b>
Series	Case Size	Inductance Code ( $\mu\text{H}$ ) 3 significant digits for inductance R = Decimal point	Inductance Tolerance $\pm 10\%$	Failure Rate	Termination T = Tin Termination	Packaging 1A = Tape & Reel

### Insertion Loss (S21)



### Return Loss (S11)



# Ultra-Broadband SMT Inductor



## GLN10R7KAT1A

AVX, the industry leader, in introducing the new GLN Series High Frequency Ultra-Broadband Inductor (UBL). This unique component provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

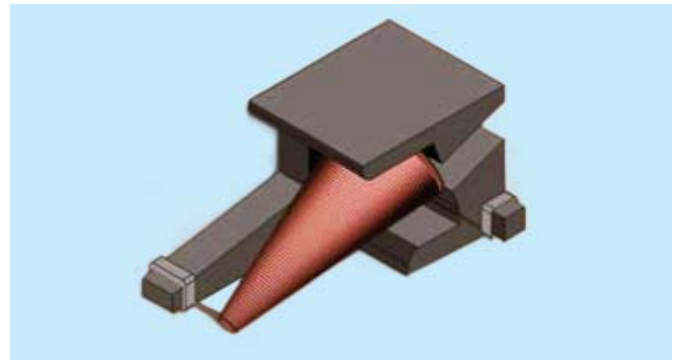
The GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency: 400 KHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted):  $\leq 0.4$  dB, typ.
- Return Loss (shunt mounted):  $> 17$  dB, typ.
- Operating Temperature Range:  $-55^{\circ}\text{C}$  to  $+125^{\circ}\text{C}$
- Lead-Free, RoHs Compliant Terminations

### ADVANTAGES

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ELECTRICAL SPECIFICATION

- Inductance:  $10.7 \mu\text{H} \pm 10\%$
- Rated Current ( $I_{\text{DC max.}}$ ):  $150 \text{ mA}^*$
- Resistance ( $I_{\text{DC max.}}$ ):  $7.10 \Omega$ , typ. at  $+20^{\circ}\text{C}$ , 10 mA Current

\*Current for  $100^{\circ}\text{C}$  Temperature rise

#### Notes:

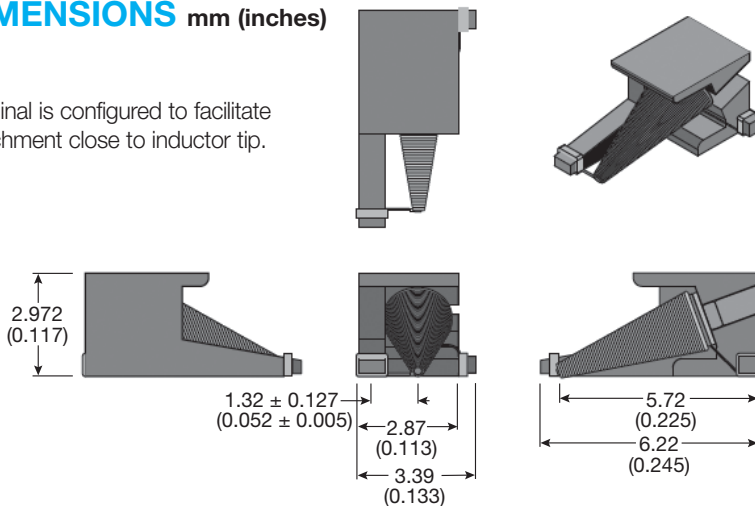
Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

Current Rating: based on a  $100^{\circ}\text{C}$  temperature rise from a  $25^{\circ}\text{C}$  ambient

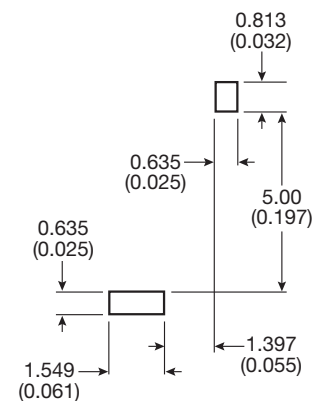
Wire: Copper, plated with gold  $20 \mu\text{in.} \pm 5 \mu\text{in.}$

### DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.



### RECOMMENDED FOOTPRINT



Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
N	6.223 (0.245)	3.378 (0.133)	2.972 (0.117)	47	110



# Ultra-Broadband SMT Inductor

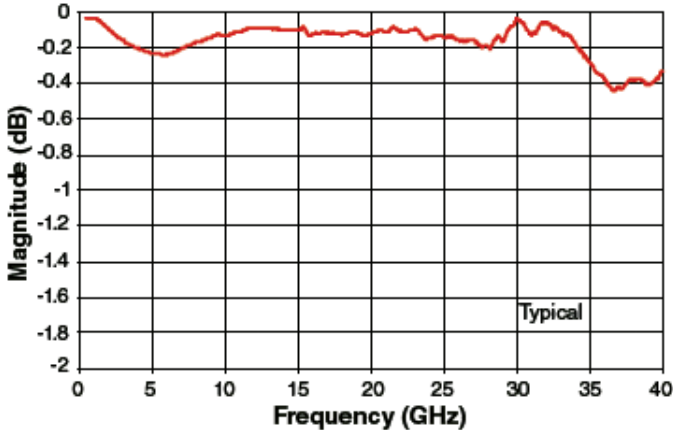


## GLN10R7KAT1A

### HOW TO ORDER

<b>GL</b>   Series	<b>N</b>   Case Size	<b>10R7</b>   Inductance Code ( $\mu\text{H}$ ) 3 significant digits for inductance R = Decimal point	<b>K</b>   Inductance Tolerance $\pm 10\%$	<b>A</b>   Failure Rate	<b>T</b>   Termination T = Tin Termination	<b>1A</b>   Packaging 1A = Tape & Reel
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### Insertion Loss (S21)



### Return Loss (S11)

