**⊗TDK** 

# Inductors(Coils)

For General Signals/Decoupling

## GLFR (Decoupling) series

Туре:	GLFR1608	[0603 inch]* (For Current)
		* Dimensions Code JIS[EIA]

Issue date: November 2010

• All specifications are subject to change without notice.

• Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.

SMD Inductors(Coils) For Power Line(Wound, Magnetic Shielded) Conformity to RoHS Directive

### GLFR Series GLFR1608

#### FEATURES

- It delivers low Rdc with high Idc.
- It is lead-free compatible. The product contains no lead whatsoever. It is able to withstand high temperature reflows (260°C during the peak) used in lead-free soldering.
- It is a product conforming to RoHS directive.
- It's construction supports bulk mounting.

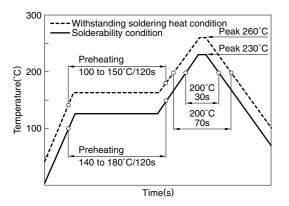
#### APPLICATIONS

Portable audio visual devices (DSCs, DVCs, etc.) Mobile communication devices (cellular phones, etc.) Information devices (PCs, etc.)

#### SPECIFICATIONS

Operating temperature range	-40 to +105°C [Including self-temperature rise]		
Storage temperature range	–40 to +105°C		

#### RECOMMENDED SOLDERING CONDITIONS REFLOW SOLDERING



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#### PRODUCT IDENTIFICATION

GLFR	1608	Т	100	М	LR
(1)	(2)	(3)	(4)	(5)	(6)

(1) Series name

#### (2) Dimensions

1608

#### (3) Packaging style

#### (4) Inductance

Т

Μ

()		
1R0	1µH	
100	10µH	
101	100µH	

1.6×0.8mm

Taping

±20%

(5) Inductance tolerance

(6) TDK internal code

#### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	4000 pieces/reel

- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- Please contact our Sales office when your application are considered the following: The device's failure or malfunction may directly endanger human life (e.g. application for automobile/aircraft/medical/nuclear power devices, etc.)

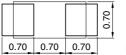
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#### SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM/RECOMMENDED PC BOARD PATTERN







Dimensions in mm



**ELECTRICAL CHARACTERISTICS** 

0.8±0.2

Dimensions in mm

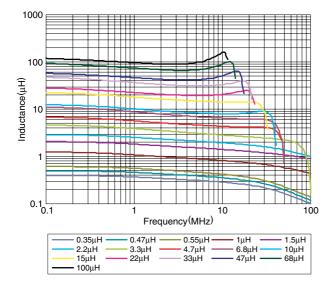
Inductance tolerance (%)	DC resistance $(\Omega) \pm 30\%$	Rated current*1 (mA)max.	Rated current*2 (mA)max.	Rated current*3 (mA)max.	Part No.
±20	0.04	330	500	1200	GLFR1608TR35M-LR
±20	0.05	300	475	1100	GLFR1608TR47M-LR
±20	0.05	250	400	1100	GLFR1608TR55M-LR
±20	0.08	230	360	900	GLFR1608T1R0M-LR
±20	0.15	170	260	625	GLFR1608T1R5M-LR
±20	0.17	160	240	600	GLFR1608T2R2M-LR
±20	0.23	120	190	525	GLFR1608T3R3M-LR
±20	0.24	110	170	500	GLFR1608T4R7M-LR
±20	0.35	90	135	400	GLFR1608T6R8M-LR
±20	0.36	80	120	400	GLFR1608T100M-LR
±20	0.9	55	75	220	GLFR1608T150M-LR
±20	1	50	70	200	GLFR1608T220M-LR
±20	2.2	40	60	120	GLFR1608T330M-LR
±20	2.3	35	50	100	GLFR1608T470M-LR
±20	4	20	35	90	GLFR1608T680M-LR
±20	5.5	15	25	80	GLFR1608T101M-LR
	(%)         ±20	(%) $(\Omega)\pm 30\%$ $\pm 20$ $0.04$ $\pm 20$ $0.05$ $\pm 20$ $0.05$ $\pm 20$ $0.08$ $\pm 20$ $0.15$ $\pm 20$ $0.17$ $\pm 20$ $0.23$ $\pm 20$ $0.24$ $\pm 20$ $0.35$ $\pm 20$ $0.36$ $\pm 20$ $0.9$ $\pm 20$ $1$ $\pm 20$ $2.2$ $\pm 20$ $2.3$ $\pm 20$ $2.3$ $\pm 20$ $4$	(%) $(\Omega) \pm 30\%$ (mA)max. $\pm 20$ 0.04330 $\pm 20$ 0.05300 $\pm 20$ 0.05250 $\pm 20$ 0.08230 $\pm 20$ 0.15170 $\pm 20$ 0.17160 $\pm 20$ 0.23120 $\pm 20$ 0.3590 $\pm 20$ 0.3680 $\pm 20$ 0.955 $\pm 20$ 150 $\pm 20$ 2.240 $\pm 20$ 2.335 $\pm 20$ 420	(%)( $\Omega$ )±30%(mA)max.(mA)max.±200.04330500±200.05300475±200.05250400±200.08230360±200.15170260±200.17160240±200.23120190±200.3590135±200.3680120±200.3680120±200.365575±2015070±202.24060±202.33550±2042035	(%)( $\Omega$ )±30%(mA)max.(mA)max.(mA)max.±200.043305001200±200.053004751100±200.052504001100±200.08230360900±200.15170260625±200.17160240600±200.23120190525±200.24110170500±200.3590135400±200.3680120400±200.365575220±2015070200±202.24060120±202.33550100

\*1 Rated current based on inductance variation: Current when inductance decreases by 10% of the initial value due to direct current superimposed characteristics

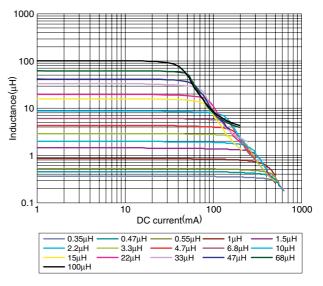
\*2 Rated current based on inductance variation: Current when inductance decreases by 30% of the initial value due to direct current superimposed characteristics

\*3 Rated current based on increasing product temperature: Current when temperature of the product reaches +20°C

#### **TYPICAL ELECTRICAL CHARACTERISTICS INDUCTANCE vs. FREQUENCY CHARACTERISTICS**

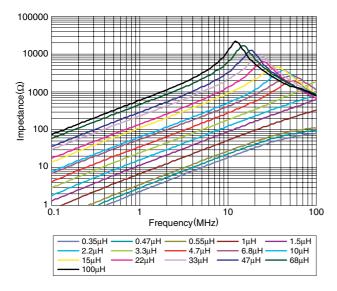


#### **INDUCTANCE vs. DC SUPERPOSITION CHARACTERISTICS**

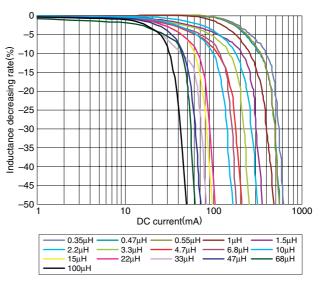


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#### TYPICAL ELECTRICAL CHARACTERISTICS IMPEDANCE vs. FREQUENCY CHARACTERISTICS



DC SUPERPOSITION vs. INDUCTANCE DECREASING RATE



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