INDUCTORS

DK

Inductors for power circuits Thin-film metal magnetic material **TFM-ALC** series

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TFM160808ALC type **FEATURES**

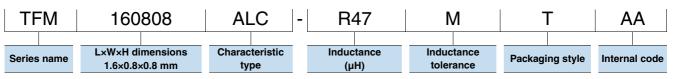
- O By using metal magnetic material with high Saturation magnetic flux density the excellent DC bias characteristics needed for inductors for power circuits can be achieved.
- O With the same product shape and terminal structure as general chip parts it has excellent mounting stability characteristics and can also be mounted to general-purpose land patterns.
- O By using a closed magnetic circuit structure leakage flux is minimized.

APPLICATION

O Smart phones, tablet terminals, HDDs, SSDs, DVCs, DSCs, mobile display panels, portable game devices, compact power supply modules, other

O Application guides: Smart phones/tablets

PART NUMBER CONSTRUCTION



CHARACTERISTICS SPECIFICATION TABLE

L		L measuring frequency	DC resistance		Rated current*				Part No.
					Isat		Itemp		
(µH)	Tolerance	(MHz)	(m Ω)max.	(m Ω)typ.	(A)max.	(A)typ.	(A)max.	(A)typ.	
0.47	±20%	1.0	62	54	2.7	2.9	2.6	2.8	TFM160808ALC-R47MTAA
1.0	±20%	1.0	160	127	1.1	1.5	1.7	1.8	TFM160808ALC-1R0MTAA
* Deted surrents smaller value of either loot or Herm									

Rated current: smaller value of either lsat or Itemp.

Isat: When based on the inductance change rate (30% below the initial L value)

Itemp: When based on the temperature increase (temperature increase of 40°C by self heating)

Measurement equipment

Measurement item	Product No.	Manufacturer		
L	4294A	Keysight Technologies		
DC resistance	Digital Milliohm Meter			
Rated current Isat	4285A+42841A+42842C	Keysight Technologies		
* Equivalent measurement equipment may be used				

lent measurement equipment may be used.

TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range*	Storage temperature range**	Individual weight		
–40 to +125 °C	–40 to +85 °C	6 mg		

Operating temperature range includes self-temperature rise.

** The storage temperature range is for after the assembly.

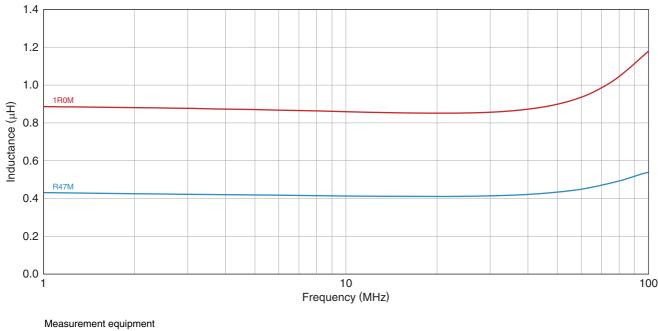


A Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. (1/4)Please note that the contents may change without any prior notice due to reasons such as upgrading.

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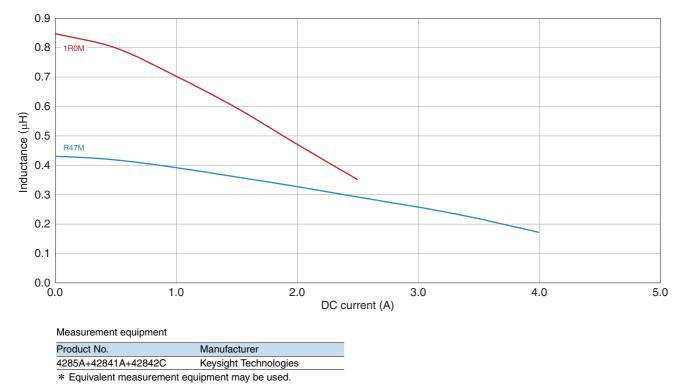
TFM160808ALC type

L FREQUENCY CHARACTERISTICS



Product No.	Manufacturer		
4294A	Keysight Technologies		
* Equivalent measurement equipment may be used.			

■ INDUCTANCE VS. DC BIAS CHARACTERISTICS



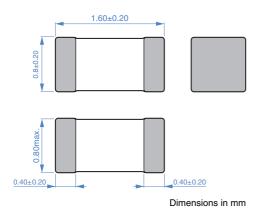
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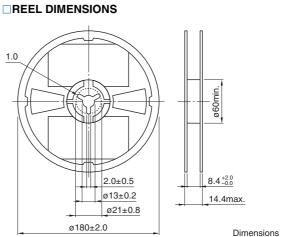
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TFM160808ALC type

SHAPE & DIMENSIONS

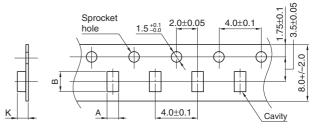


PACKAGING STYLE



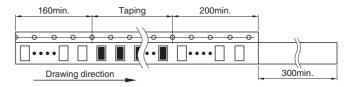
Dimensions in mm

TAPE DIMENSIONS



Dimensions in mm

Туре	А	В	К
TFM160808ALC	1.2	1.9	0.8



Dimensions in mm

PACKAGE QUANTITY

Package quantity

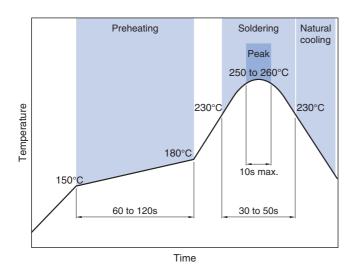
3000 pcs/reel

RECOMMENDED LAND PATTERN



Dimensions in mm

RECOMMENDED REFLOW PROFILE



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REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using this products.

The storage period is less than 6 months. Be sure to follow the storage conditions (temperature: 5 to 40°C, humidity: 20 to 75% RH or less).				
If the storage period elapses, the soldering of the terminal electrodes may deteriorate.				
) Do not use or store in locations where there are conditions such as gas corrosion (salt, acid, alkali, etc.).				
 Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature does not exceed 150°C. 	e difference between the solder temperature and chip temperature			
Soldering corrections after mounting should be within the range of the conditions determined in the specifications. If overheated, a short circuit, performance deterioration, or lifespan shortening may occur.				
When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not given to the chip due to the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.				
Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be sufficient for the set thermal design.				
 Carefully lay out the coil for the circuit board design of the non-mag A malfunction may occur due to magnetic interference. 	gnetic shield type.			
○ Use a wrist band to discharge static electricity in your body through the grounding wire.				
O Do not expose the products to magnets or magnetic fields.				
O Do not use for a purpose outside of the contents regulated in the d	elivery specifications.			
ment, industrial robots) under a normal operation and use conditio The products are not designed or warranted to meet the requireme ity require a more stringent level of safety or reliability, or whose fa person or property.	ment, personal equipment, office equipment, measurement equip-			
 (1) Aerospace/aviation equipment (2) Transportation equipment (cars, electric trains, ships, etc.) (3) Medical equipment (4) Power-generation control equipment (5) Atomic energy-related equipment (6) Seabed equipment (7) Transportation control equipment When designing your equipment even for general-purpose application tection circuit/device or providing backup circuits in your equipment.	 (8) Public information-processing equipment (9) Military equipment (10) Electric heating apparatus, burning equipment (11) Disaster prevention/crime prevention equipment (12) Safety equipment (13) Other applications that are not considered general-purpose applications 			

A Please be sure to request delivery specifications that provide further details on the features and specifications of the products for proper and safe use. (4/4) Please note that the contents may change without any prior notice due to reasons such as upgrading.