

Inductors for power circuits **Wound ferrite SLF** series







SLF10165 type













FEATURES

- Magnetic shield type wound inductor for power circuits.
- O Product lineup allows for various usages.
- Operating temperature range: -40 to +105°C (including self-temperature rise)

APPLICATION

Thin-screen TVs, LCDs, AV equipment, gaming equipment, other electrical devices

■ PART NUMBER CONSTRUCTION

SLF	10165	T -	1R5	M	6R8	- PF
Series name	L×W×H dimensions	Packaging style	Inductance (µH)	Inductance tolerance	Rated current (A)	Internal code

CHARACTERISTICS SPECIFICATION TABLE

L		L measuring frequency	DC resistance	Rated current*		Part No.
				Isat	Itemp	
(µH)	Tolerance	(kHz)	$(m\Omega)$	(A)max.	(A)max.	
1.5	±30%	100	6.7±30%	10.7	6.8	SLF10165T-1R5N6R83PF
2.2	±30%	100	8.4±30%	8.9	6.3	SLF10165T-2R2N6R33PF
3.3	±30%	100	9.6±30%	7.8	5.8	SLF10165T-3R3N5R83PF
4.7	±30%	100	11.7±30%	6.1	4.7	SLF10165T-4R7N4R73PF
6.8	±30%	100	14±30%	4.6	4.3	SLF10165T-6R8N4R33PF
10	±20%	100	18.5±20%	4.1	3.8	SLF10165T-100M3R83PF
15	±20%	100	27±20%	3.1	3.1	SLF10165T-150M3R13PF
22	±20%	100	44.8±20%	2.7	2.4	SLF10165T-220M2R43PF

^{*} Rated current: smaller value of either Isat or Itemp.

Isat: When based on the inductance change rate (10% below the initial value)

Itemp: When based on the temperature increase (temperature increase of 30°C by self heating)

Measurement equipment

Measurement item	Product No.	Manufacturer
L	4194A	Keysight Technologies
DC resistance	VP-2941A	Panasonic
Rated current Isat	4284A+42841A+42842C	Keysight Technologies

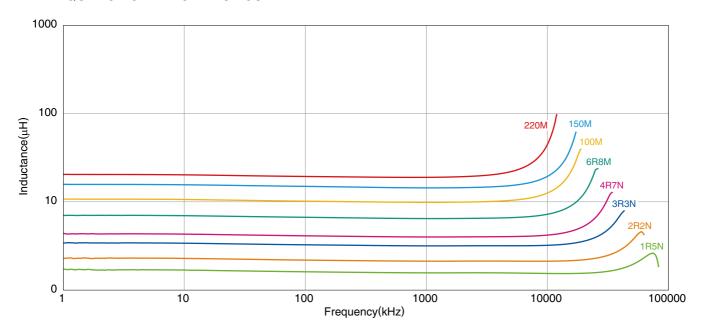
^{*} Equivalent measurement equipment may be used.





SLF10165 type

L FREQUENCY CHARACTERISTICS

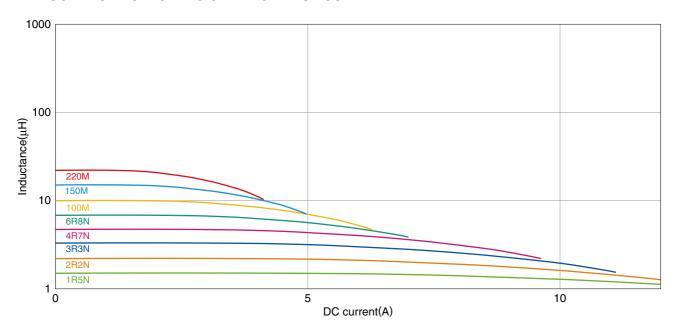


Measurement equipment

Product No.	Manufacturer
4294A	Keysight Technologies

^{*} Equivalent measurement equipment may be used.

■INDUCTANCE VS. DC BIAS CHARACTERISTICS



Measurement equipment

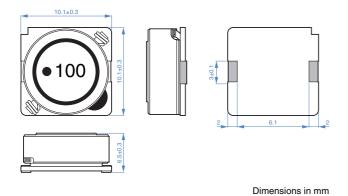
Product No.	Manufacturer
4284A+42841A+42842C	Keysight Technologies

^{*} Equivalent measurement equipment may be used.

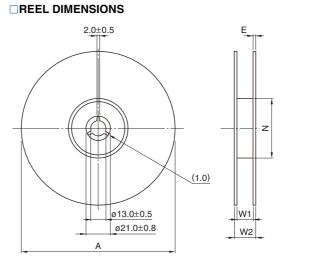


SLF10165 type

SHAPE & DIMENSIONS

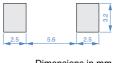


PACKAGING STYLE



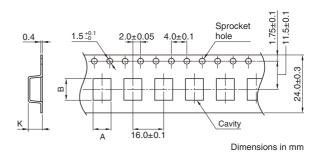
Dimensions in mm

RECOMMENDED LAND PATTERN



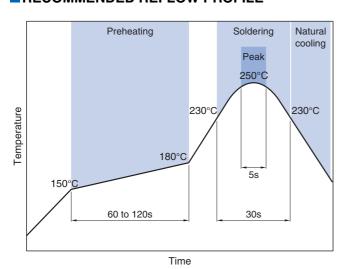
Dimensions in mm

TAPE DIMENSIONS



Туре	Α	В	K
SLF10165	10.5	10.5	7.1

■ RECOMMENDED REFLOW PROFILE



□PACKAGE QUANTITY

Package quantity	500 pcs/reel

■TEMPERATURE RANGE, INDIVIDUAL WEIGHT

Operating temperature range*	Storage temperature range**	Individual weight
-40 to +105 °C	-40 to +105 °C	1.9 g

^{*} Operating temperature range includes self-temperature rise.

^{**} The storage temperature range is for after the assembly.



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.

⚠ REMINDERS	
The storage period is less than 6 months. Be sure to follow the storage conditions (temperature: 5 to 30°C, huless). If the storage period elapses, the soldering of the terminal electrodes may deteriorate.	ımidity: 10 to 75% RH or
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 difference between the solder temperature does not exceed 150°C.	re and chip temperature
Soldering corrections after mounting should be within the range of the conditions determined in the specification of the specification of the conditions determined in the specification of the specific at the conditions after mounting should be within the range of the conditions determined in the specification.	ons.
When embedding a printed circuit board where a chip is mounted to a set, be sure that residual stress is not the overall distortion of the printed circuit board and partial distortion such as at screw tightening portions.	given to the chip due to
Self heating (temperature increase) occurs when the power is turned ON, so the tolerance should be suffice design.	cient for the set thermal
 Carefully lay out the coil for the circuit board design of the non-magnetic shield type. A malfunction may occur due to magnetic interference. 	
Use a wrist band to discharge static electricity in your body through the grounding wire.	
On not expose the products to magnets or magnetic fields.	
On not use for a purpose outside of the contents regulated in the delivery specifications.	
The products listed on this catalog are intended for use in general electronic equipment (AV equipment, telement, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, industrial robots) under a normal operation and use condition. The products are not designed or warranted to meet the requirements of the applications listed below, whose particular a more stringent level of setate or reliability or whose failure, malfunction or trouble could cause so	ont, measurement equip-

- (1) Aerospace/aviation equipment
- (2) Transportation equipment (cars, electric trains, ships, etc.)
- (3) Medical equipment

person or property.

(4) Power-generation control equipment

set forth in the each catalog, please contact us.

- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control 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

When designing your equipment even for general-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.

If you intend to use the products in the applications listed below or if you have special requirements exceeding the range or conditions