

# **3-teminal Filters**

# For signal line

# **ACF** series

Type: ACF3225 [1210 inch]\*

ACF4532 [1812 inch]

\* Dimensions Code [EIA]

Issue date: September 2011

<sup>•</sup> All specifications are subject to change without notice.

<sup>•</sup> 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.

# **&TDK**

# 3-terminal Filters For Signal Line

### **Conformity to RoHS Directive**

# ACF Series ACF321825, ACF451832

### **FEATURES**

- The ACF series consists of products with superior attenuation characteristics, in which the T-type filter circuit is magnetically shielded with ferrite.
- The series offers even greater attenuation characteristics when used in a stable circuit on the ground.
- The ACF series is ideal for high-density circuit design, since the series is vertically mounted and does not require much mounting space.
- · Available for reflow soldering.
- It is a product conforming to RoHS directive.

### PRODUCT IDENTIFICATION

$$\frac{\mathsf{ACF}}{(1)} \ \frac{321825}{(2)} \ \ \frac{223}{(3)} \ \ \frac{\mathsf{T}}{(4)} \ \frac{\mathsf{D} \, \Box \, \Box}{(5)}$$

- (1) Series name
- (2) Dimensions
- (3) Type
- (4) Packaging style
- (5) TDK internal code

### **TEMPERATURE RANGES**

Operating/Storage	−25 to +85°C	

### PACKAGING STYLE AND QUANTITIES

Packaging style	Quantity
Taping	1000 pieces/reel

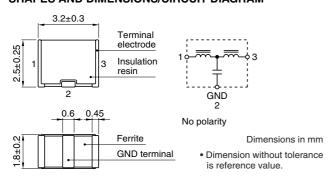
### HANDLING AND PRECAUTIONS

- Before soldering, be sure to preheat components. The preheating temperature should be set so that the temperature difference between the solder temperature and product temperature does not exceed 150°C.
- After mounting components onto the printed circuit board, do not apply stress through board bending or mishandling.
- The inductance value may change due to magnetic saturation if the current exceeds the rated maximum.
- · Do not expose the inductors to stray magnetic fields.
- Avoid static electricity discharge during handling.
- When hand soldering, apply the soldering iron to the printed circuit board only. Temperature of the iron tip should not exceed 350°C. Soldering time should not exceed 3 seconds.

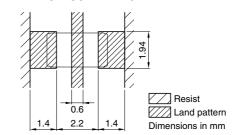
- Conformity to RoHS Directive: This means that, in conformity with EU Directive 2002/95/EC, lead, cadmium, mercury, hexavalent chromium, and specific bromine-based flame retardants, PBB and PBDE, have not been used, except for exempted applications.
- Please contact our Sales office when your application is 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.)
- All specifications are subject to change without notice.

# &TDK

# ACF321825 TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM



# RECOMMENDED PC BOARD PATTERN REFLOW SOLDERING

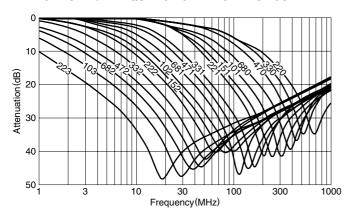




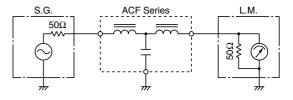
# **ELECTRICAL CHARACTERISTICS**

Part No.	25dB attenuation frequency range (MHz)	Rated voltage Edc (V)max.	Rated current (mA)max.	DC resistance (Ω)max. [Terminal No.1 to 3]	Insulation resistance (M $\Omega$ )min. [Terminal No.1 to 2/No.2 to 3]
ACF321825-223	11 to 55	20	300	0.15	1000
ACF321825-103	17 to 60	20	300	0.15	1000
ACF321825-682	22 to 75	20	300	0.15	1000
ACF321825-472	30 to 85	20	300	0.15	1000
ACF321825-332	37 to 90	20	300	0.15	1000
ACF321825-222	45 to 105	20	300	0.15	1000
ACF321825-152	60 to 115	20	300	0.15	1000
ACF321825-102	80 to 140	20	300	0.15	1000
ACF321825-681	95 to 150	20	300	0.15	1000
ACF321825-471	120 to 180	20	300	0.15	1000
ACF321825-331	130 to 210	20	300	0.15	1000
ACF321825-221	170 to 250	20	300	0.15	1000
ACF321825-151	205 to 280	20	300	0.15	1000
ACF321825-101	265 to 340	20	300	0.15	1000
ACF321825-680	340 to 420	20	300	0.15	1000
ACF321825-470	420 to 500	20	300	0.15	1000
ACF321825-330	500 to 600	20	300	0.15	1000
ACF321825-220	600 to 700	20	300	0.15	1000

# TYPICAL ELECTRICAL CHARACTERISTICS ATTENUATION vs. FREQUENCY CHARACTERISTICS



# **MEASURING CIRCUIT**



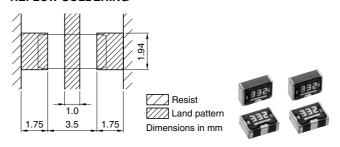
<sup>•</sup> All specifications are subject to change without notice.

# **ATDK**

# ACF451832 TYPE SHAPES AND DIMENSIONS/CIRCUIT DIAGRAM

# 4.5±0.4 Terminal electrode 3 Insulation resin GND 2 No polarity Dimensions in mm Dimension without tolerance is reference value.

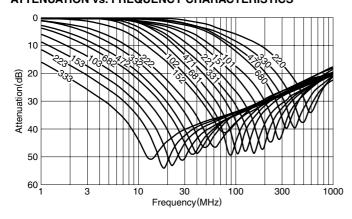
# RECOMMENDED PC BOARD PATTERN REFLOW SOLDERING



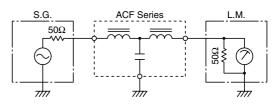
### **ELECTRICAL CHARACTERISTICS**

Part No.	25dB attenuation frequency range (MHz)	Rated voltage Edc (V)max.	Rated current (mA)max.	DC resistance (Ω)max. [Terminal No.1 to 3]	Insulation resistance (M $\Omega$ )min. [Terminal No.1 to 2/No.2 to 3]
ACF451832-333	7 to 60	50	300	0.15	1000
ACF451832-223	9 to 65	50	300	0.15	1000
ACF451832-153	11 to 70	50	300	0.15	1000
ACF451832-103	15 to 75	50	300	0.15	1000
ACF451832-682	20 to 85	50	300	0.15	1000
ACF451832-472	25 to 90	50	300	0.15	1000
ACF451832-332	35 to 100	50	300	0.15	1000
ACF451832-222	40 to 110	50	300	0.15	1000
ACF451832-152	50 to 130	50	300	0.15	1000
ACF451832-102	65 to 150	50	300	0.15	1000
ACF451832-681	75 to 160	50	300	0.15	1000
ACF451832-471	95 to 180	50	300	0.15	1000
ACF451832-331	115 to 205	50	300	0.15	1000
ACF451832-221	150 to 250	50	300	0.15	1000
ACF451832-151	190 to 290	50	300	0.15	1000
ACF451832-101	235 to 335	50	300	0.15	1000
ACF451832-680	295 to 395	50	300	0.15	1000
ACF451832-470	360 to 460	50	300	0.15	1000
ACF451832-330	450 to 550	50	300	0.15	1000
ACF451832-220	550 to 650	50	300	0.15	1000

# TYPICAL ELECTRICAL CHARACTERISTICS ATTENUATION vs. FREQUENCY CHARACTERISTICS



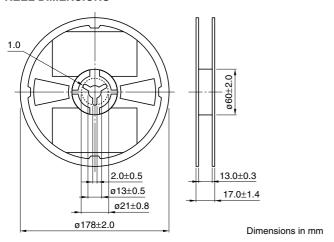
### **MEASURING CIRCUIT**



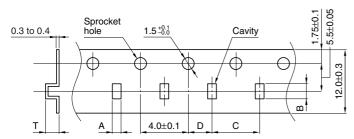
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# PACKAGING STYLES REEL DIMENSIONS

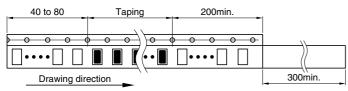


# **TAPE DIMENSIONS**



Dimensions in mm

Туре	Α	В	С	D	Т
321825	2.2±0.2	3.7±0.2	4.0±0.1	2.0±0.05	3.3max.
451832	2.2±0.2	5.2±0.2	4.0±0.1	2.0±0.05	3.8max.



Dimensions in mm

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