

July 2013

Chip Beads

For power line

HFXXACC series

HFxxACC2012 [0805 inch]*
HFxxACC3216 [1206 inch]
HFxxACC3225 [1210 inch]
HFxxACC4532 [1812 inch]

* Dimensions Code JIS[EIA]

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 these products.

⚠ REMINDERS
The storage period is less than 12 months. Be sure to follow the storage conditions (Temperature: 5 to 40°C, Humidity: 10 to 75% RF or less).
If the storage period elapses, the soldering of the terminal electrodes may deteriorate.
On 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 and chip temperature does not exceed 150°C.
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-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, telecommunications equipment, home appliances, amusement equipment, computer equipment, personal equipment, office equipment, measurement 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 performance and/or
quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property.

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



Chip Beads

For power line

Product compatible with RoHS directive
Halogen-free
Compatible with lead-free solders

Overview of the HFxxACC Series

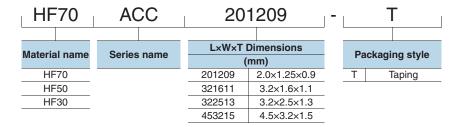
FEATURES

- O Noise reduction solution for power supply lines.
- Lineup includes 4 sizes from 201209 to 453215.
- Achieves various frequency characteristics by using 3 materials with different features.
- O There is no directivity.

APPLICATION

Power supply line noise removal for DSCs, DVCs, PCs, TVs, printers, game machines, smart grids, wireless base stations, industrial equipment, automobiles, etc.

PART NUMBER CONSTRUCTION



■ OPERATING TEMPERATURE RANGE, PACKAGE QUANTITY, PRODUCT WEIGHT

	Temperat	ure range			
Туре	Operating temperature*	. 0		Individual weight	
	(°C)	(°C)	(pieces/reel)	(mg)	
HFxxACC2012	-40 to +125	-40 to +125	2,000	10	
HFxxACC3216	-40 to +125	-40 to +125	2,000	22	
HFxxACC3225	-40 to +125	-40 to +125	2,000	46	
HFxxACC4532	-40 to +125	-40 to +125	1,000	94	

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

^{**} The Storage temperature range is for after the circuit board is mounted.

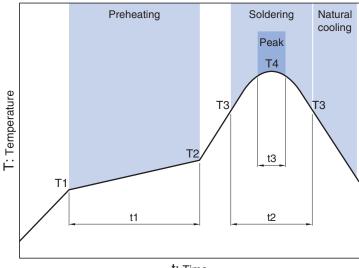
RoHS Directive Compliant Product: See the following for more details related to RoHS Directive compliant products. http://www.tdk.co.jp/rohs/

O Halogen-free: Indicates that CI content is less than 900ppm, Br content is less than 900ppm, and that the total CI and Br content is less than 1500ppm.



Overview of the HFxxACC Series

■ RECOMMENDED REFLOW PROFILE



t: Time

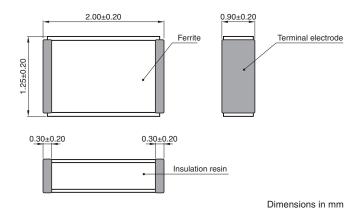
Preheating		Soldering	Soldering		Peak	
Temp.		Time	Temp.	Time	Temp.	Time
T1	T2	t1	Т3	t2	T4	t3
150°C	180°C	60 to 120s	230°C	30 to 60s	250 to 260°C	10s



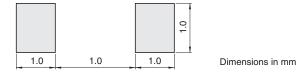
HFxxACC2012 Type



SHAPE & DIMENSIONS



■ RECOMMENDED LAND PATTERN





HFxxACC series HFxxACC2012 Type

■ ELECTRICAL CHARACTERISTICS

Impedance [100MHz]		DC resistance — (Ω)max.	Rated current (A)max.	Part No.
(Ω) Tolerance		(52)IIIax.	(A)IIIax.	
10	±25%	0.03	1.5	HF70ACC201209-T
11	±25%	0.03	1.5	HF50ACC201209-T
7	±25%	0.03	1.5	HF30ACC201209-T

[•] All specifications are subject to change without notice.



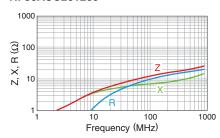
HFxxACC series HFxxACC2012 Type

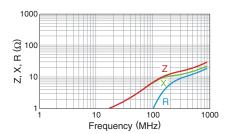
ELECTRICAL CHARACTERISTICS

□Z, X, R VS. FREQUENCY CHARACTERISTICS

HF70ACC201209

HF50ACC201209





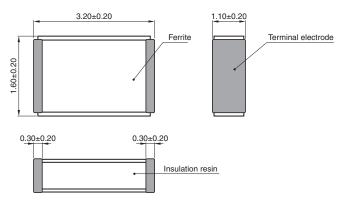
[•] All specifications are subject to change without notice.



HFxxACC3216 Type

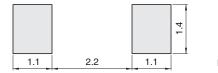


SHAPE & DIMENSIONS



Dimensions in mm

RECOMMENDED LAND PATTERN



[•] All specifications are subject to change without notice.



HFxxACC series HFxxACC3216 Type

■ ELECTRICAL CHARACTERISTICS

Impedance [100MHz] (Ω) Tolerance		DC resistance — (Ω)max.	Rated current (A)max.	Part No.
		(52)IIIax.	(A)IIIax.	
26	±25%	0.04	1.5	HF70ACC321611-T
31	±25%	0.04	1.5	HF50ACC321611-T
19	±25%	0.04	1.5	HF30ACC321611-T

[•] All specifications are subject to change without notice.

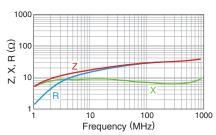


HFxxACC series HFxxACC3216 Type

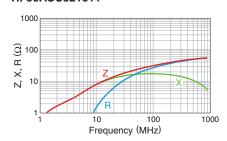
ELECTRICAL CHARACTERISTICS

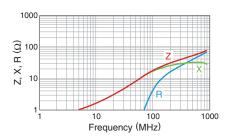
□Z, X, R VS. FREQUENCY CHARACTERISTICS

HF70ACC321611



HF50ACC321611





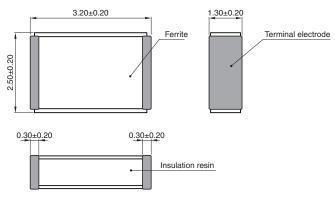
[•] All specifications are subject to change without notice.



HFxxACC3225 Type

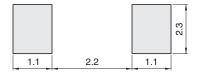


SHAPE & DIMENSIONS



Dimensions in mm

RECOMMENDED LAND PATTERN



[•] All specifications are subject to change without notice.



HFxxACC series HFxxACC3225 Type

■ ELECTRICAL CHARACTERISTICS

Impedance [100MHz] (Ω) Tolerance		DC resistance — (Ω)max.	Rated current (A)max.	Part No.
		(52)IIIax.	(A)IIIax.	
52	±25%	0.05	1.5	HF70ACC322513-T
60	±25%	0.05	1.5	HF50ACC322513-T
31	±25%	0.05	1.5	HF30ACC322513-T

[•] All specifications are subject to change without notice.



HFxxACC series HFxxACC3225 Type

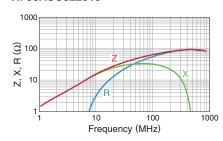
ELECTRICAL CHARACTERISTICS

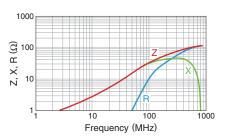
□Z, X, R VS. FREQUENCY CHARACTERISTICS

HF70ACC322513

1000 © 100 x x N 10 R Z X N 10 100 1000 Frequency (MHz)

HF50ACC322513





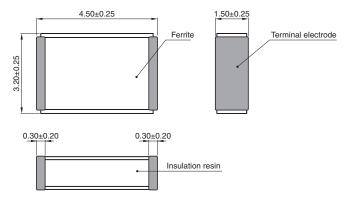
[•] All specifications are subject to change without notice.



HFxxACC4532 Type

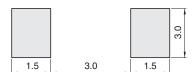


SHAPE & DIMENSIONS



Dimensions in mm

■ RECOMMENDED LAND PATTERN



[•] All specifications are subject to change without notice.



HFxxACC series HFxxACC4532 Type

■ ELECTRICAL CHARACTERISTICS

		DC resistance — (Ω)max.	Rated current (A)max.	Part No.
		(52)IIIax.	(A)IIIax.	
120	±25%	0.05	1.5	HF70ACC453215-T
125	±25%	0.05	1.5	HF50ACC453215-T
70	±25%	0.05	1.5	HF30ACC453215-T

[•] All specifications are subject to change without notice.

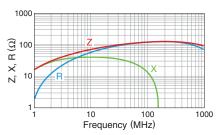


HFxxACC series HFxxACC4532 Type

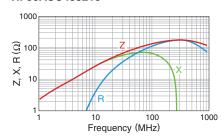
ELECTRICAL CHARACTERISTICS

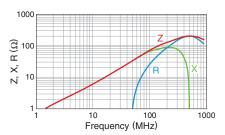
□Z, X, R VS. FREQUENCY CHARACTERISTICS

HF70ACC453215



HF50ACC453215



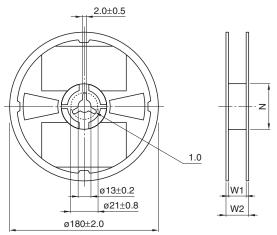


[•] All specifications are subject to change without notice.



Packaging style

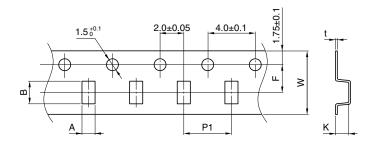
REEL DIMENSIONS



Dim	ancian	e in	mm

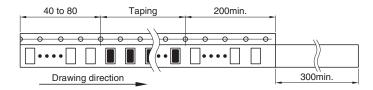
Туре	W1	W2	N
HFxxACC2012	8.4+2.0/-0.0	14.4max.	ø60min.
HFxxACC3216	8.4+2.0/-0.0	14.4max.	ø60min.
HFxxACC3225	3225 8.4+2.0/–0.0 14.4max.		ø60min.
HFxxACC4532	13.0±0.3	17.0±1.4	ø61min.

TAPE DIMENSIONS



Dimensions in mm

Туре	Α	В	F	P1	W	K	t
HFxxACC2012	1.4±0.1	2.25±0.1	3.5±0.05	4.0±0.1	8.0±0.3	1.25max.	0.3max.
HFxxACC3216	1.75±0.1	3.45±0.1	3.5±0.05	4.0±0.1	8.0±0.3	1.4max.	0.3max.
HFxxACC3225	2.6±0.1	3.45±0.1	3.5±0.05	4.0±0.1	8.0±0.3	1.6max.	0.35max.
HFxxACC4532	3.37±0.1	4.75±0.1	5.5±0.05	8.0±0.1	12.0±0.3	1.8max.	0.4max.



[•] All specifications are subject to change without notice.

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