www.DataSheet4U.com Chip Bead Cores

Type:	EXCCL
	EXCML
	EXC3B

Features

- Effective noise suppression for Power line and high speed signal line.
- Easy pattern layout on PC Board without jointing the ground pattern.
- Available for flow soldering and re-flow soldering.

Type: EXCCL, EXCML

- Low DC Resistance 3 to 8 mil ohm typical: Rated current 3, 4 ampere for Power line (type EXCML)
- Low impedance: the wave-form correction for high speed signal line noise

Type: EXC3B

- High impedance for high speed signal line noise
- To increase attenuation by raising the R component steeply from around 50 MHz.
- 60Ω-1A, 120Ω-0.5A are achieved by 1608 size. (type: EXC3BP)

Type: EXCCL

• Explanation of Part Numbers

Recommended Applications

- Digital equipment such as Personal Computers, Word Processors, Printer, HDD, PCC, CD-ROM, DVD-ROM
- Digital Audio and Video equipment such as VCR, DVC, CD Player, DVD Player.
- Power supply equipment such as AC adapter, and Switching Power Supply
- Electronic automotive equipment such as Engine controls, Panels and Audio systems.
- Electric musical instrument, and other digital devices
- Above equipment of Power line and High speed signal line.



Construction



Dimensions in mm (not to scale)

			(mm)
	4523	3225	3216
L	4.5±0.4	3.2±0.3	3.2±0.3
W	3.2±0.3	2.5±0.3	1.6±0.3
Н	1.8±0.2	1.6±0.3	1.6±0.3
Α	0.5±0.2	0.5±0.3	0.5±0.3

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Type: EXCML





Construction

Dimensions in mm (not to scale)



w (mm) W Туре L е EXCML16 1.6±0.2 0.8±0.2 0.8±0.2 (0.4)EXCML20 2.0±0.2 1.25±0.20 0.9±0.2 (0.5) EXCML32 3.2±0.3 1.6±0.3 0.9±0.2 (0.6)EXCML45 4.5±0.3 1.6±0.3 1.1±0.2 (0.6)

■ Type: EXC3B

• Explanation of Part Numbers

Inner Conductor

Termination



Туре

EXC3BB

EXC3BP

W

Т

1.6±0.2 0.8±0.2 0.8±0.2 0.30±0.15

1.6±0.2 0.8±0.2 0.8±0.2 0.30±0.15

Design, Specifications are subject to change without notice. Ask factory for technical specifications before purchase and/or use. Whenever a doubt about safety arises from this product, please inform us immediately for technical consultation without fail.

е

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Ratings

Turce	Dort Number	Impedan	се	Rated Current	DC Resistance
туре	Fait Number	(Ω) at 100 MHz	tol.(%)	(mA DC)	(Ω) Max.
4532	EXCCL4532U1	115		2000	0.1
3225	EXCCL3225U1	45		2000	0.05
3216	EXCCL3216U1	25		2000	0.05
4516	EXCML45A910H	91		3000	0.016
3216	EXCML32A680U	68		3000	0.012
2012	EXCML20A390U	39	±25	4000	0.008
1608	EXCML16A270U	27		4000	0.006
	EXC3BP600H	60		1000	0.07
	EXC3BP121H	120		500	0.1
1608	EXC3BB221H	220		200	0.3
	EXC3BB601H	600		100	0.8
	EXC3BB102H	1000		50	1

Chip Bead Cores

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Panasonic

Impedance Characteristics (Reference Data)

Measuered by HP4291A

Z: Impedance

R : Resistance X : Reactance



Impedance Characteristics (Reference Data)

Measured by HP4291A

Chip Bead Cores

Z: Impedance

R : Resistance X : Reactance



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Packaging Methods

• Standard Quantity

Part Number	Embossed Taping	Weight (mg/pcs.) Reference Data
EXCCL4532U1	1000 pcs./reel	125.8
EXCCL3225U1	2000 pcs./reel	60.5
EXCCL3216U1	2000 pcs./reel	37
EXCML45A910H	3000 pcs./reel	36.0
EXCML32A680U	3000 pcs./reel	21.5
EXCML20A390U	4000 pcs./reel	10.5
EXCML16A270U	4000 pcs./reel	4.5
EXC3B	4000 pcs./reel	4.5

• Standard Reel Dimensions in mm



• Embossed Carrier Dimensions in mm (not to scale)



Standard Reel Dimensions (mm)

Part Number	φA	φB	φC	φD	E	W	Т	t
EXCCL4532U1						13.0 ^{+0.5}	16.5 max.	
EXCCL3225U1						O 5+0.5	12 mov	
EXCCL3216U1						9.0_1.0	15 max.	
EXCML45A910H	180.0 _{_3.0}	60.0±1.0	13.0±0.5	21.0±0.8	2.0±0.5	13.0+0.5	16.5 max.	1.2±0.5
EXCML32A680U								
EXCML20A390U						O E+0.5	12 may	
EXCML16A270U						9.5-1.0	13 max.	
EXC3B								

Embossed Carrier Dimensions (mm)

Part Number	А	В	W	F	E	P ₁	P ₂	P ₀	ϕD_0	t ₁	t ₂					
EXCCL4532U1	3.6±0.2	4.9±0.2	12.0±0.2	5.5±0.1		8.0±0.1					2.4 max.					
EXCCL3225U1	2.9±0.2	3.6±0.2	8 0+0 2	3 5+0 1							2.1 may					
EXCCL3216U1	2.0±0.2	3.6±0.2	0.010.2	5.5±0.1							2.1 max.					
EXCML45A910H	1.9±0.2	4.8±0.2	12.0±0.2	5.5±0.1	1.75±0.10	4.0±0.1	2.0±0.1	4.0±0.1	1.5±0.1	0.20±0.05	1.8 max.					
EXCML32A680U	1.9±0.2	3.5±0.2														
EXCML20A390U	1.5±0.2	2.3±0.2	8 0+0 2	8 0+0 2	8 0+0 2	8 0+0 2 3 5+	2 2 5 + 0 1	2 2 5 + 0 1	35+01							16 max
EXCML16A270U	1.1±0.2	2.1±0.2	0.010.2	0.010.1							1.0 Max.					
EXC3B	1.0±0.1	1.8±0.1								0.25±0.05						

Soldering Conditions

- Precautions and recommendations are described below.
- Please inquire with us when different conditions are used.
- Please measure a temperature of terminations and study the solderability of every type of board, before actual use.

<Recommended reflow soldering temperature>



* Reflow soldering shall be within two times

<Recommended flow soldering temperature>



<Repair with hand soldering>

• Use a soldering iron with tip temperature 350 °C or less. Solder for 3 seconds or less for each termination.

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(mm)

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Recommended Land Pattern Dimensions in mm (not to scale)

	

Part Number	Flow/Reflow	А	В	С
EXCCL4532U1		3	5.4	2.8
EXCCL3225U1		1.7	4.1	2.1
EXCCL3216U1	Flow, Reflow	1.7	4.1	1.2
EXCML45A910H		2.6 to 3	5.5 to 6.5	1.2 to 1.6
EXCML32A680U		1.6 to 2	4 to 5	1.2 to 1.6
EXCML20A390U		0.8 to 1.2	3 to 4	1 to 1.2
EXCML16A270U		0.6 to 1	2 to 3	0.8 to 1
EXCOR	Flow	0.8 to 1	2.4 to 3	0.6 to 0.8
EAUSD	Reflow	0.8 to 1	5.4 4.1 5.5 to 6.5 2 4 to 5 2 3 to 4 2 to 3 2 2 to 2.6	0.8 to 1

∆Safety Precautions

- 1. Flux: Use rosin or non-halogen type flux.
- 2. Cleaning agent: Use alcohol type. Inquire for other type of cleaning agent.
- 3. Excessive mechanical stress may damage the components. Take care in handling.
- 4. Store at temperature of –5 °C to +40 °C and relative humidity 40 % to 60 %. Avoid rapid changes of temperature and humidity.
- 5. Use the components within one year after date of inspection for shipment.
- 6. This catalog shows the quality and performance of a unit component. For quality assurance, exchange the delivery specification with us. Before adoption, be sure to evaluate and verify the product by mounting it in your product.