NextGen Components,Inc.

PART CODE: **FB450K0000L116**

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q1211-FB450K0000L116	
DATE	Dec. 11, 2023	
REVISION	A0	Updated With Most Recent Data - Official First Release
DESCRIPTION AND MAIN PARAMETRICS	KHz Dip Ceramic Filter L11.0*W7.0*H8.0mm 5 Pins CF W Series 450±1.0 KHz, 6dB Bandwidth: ±4.5KHz Min.; Ripple: 1.0dB Max. GDT Ripple deviation @f0±3.0KHz: 40μsec Max, Insertion Loss: 9.0dB Max.; Input/Output Impedance:2.0 Kohm, Operating Temp. Range -20°C ~+85°C, Packed in Bulk RoHS/RoHS III compliant, RoHS Annex III lead Exemption (exempt per RoHS EU 2015/863)	
CUSTOMER		
CUSTOMER PART NO.		
CROSS REF. PART NO.		
ORIGINAL MFG/PART NO.	TGS/CF 450KGW BLH/LTW450KGx	
PART CODE	FB450K0000L116	

VENDOR APPROVE
Issued/Checked/Approved Mandy Xu · Ruby Zhang · Jack Zhang (NextGen Components, Inc.)
DATE: Dec. 11, 2023

CUSTOMER APPROVE
DATE:

NextGen Components, Inc. sales@NextGenComponent.com www.NextGenComponent.com

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KHZ DIP CERAMIC FILTER GDT TYPE CF W SERIES

MAIN FEATURE

- KHz Dip Ceramic Filter GDT Type CF W Series
- Case Dimension L11.0*W7.0*H8.0mm, 5 Pins
- GDT Ripple Deviation.
- Low Cost And Short Shipment
- Cross More Competitors Part CFWL Series
- RoHS/RoHS III compliant, RoHS Annex III lead Exemption (exempt per RoHS EU 2015/863)

APPLICATION

- Communication Electronics

PART CODE GUIDE

RFQ
Request For Quotation

FB	450K0000	L	116
1	2	3	4

1. FB: Part family Code for KHz Dip Ceramic Filter L11.0*W7.0*H8.0mm 5 Pins CF W Series
2. 450K0000: Frequency range code for 450.0000KHz
3. L: Dip type, Package in bulk
4. 116: Internal Control Code or Special Parameters Code Letter A~Z or digits (1-9)

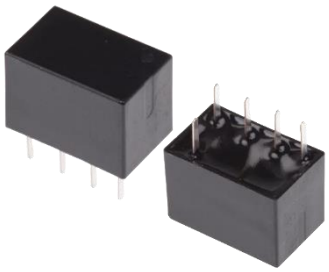
HOW TO ORDER

Please follow up **Part Code Guide** and indicate pat code when you order or RFQ.

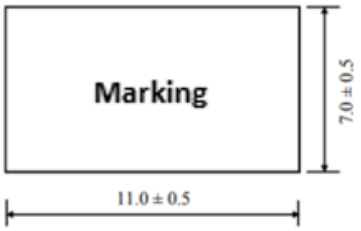
KHZ DIP CERAMIC FILTER GDT TYPE CF W SERIES

DIMENSION (Unit: mm)

Image for reference



Top View

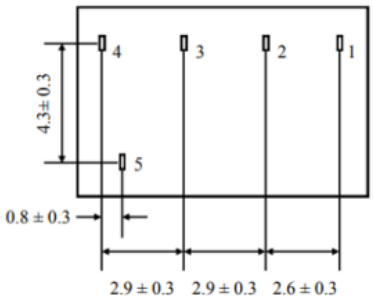


Marking

Line 1: Series Code

Line 2: Frequency Range + Internal Code

Bottom View



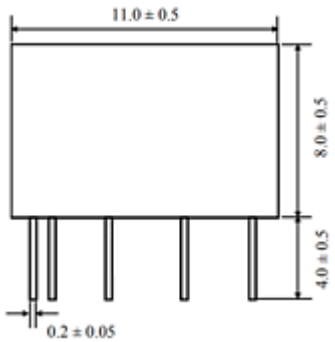
Connection

Pin 1: Input

Pin 2, Pin 3, Pin 4: Ground

Pin 5: Output

Side View

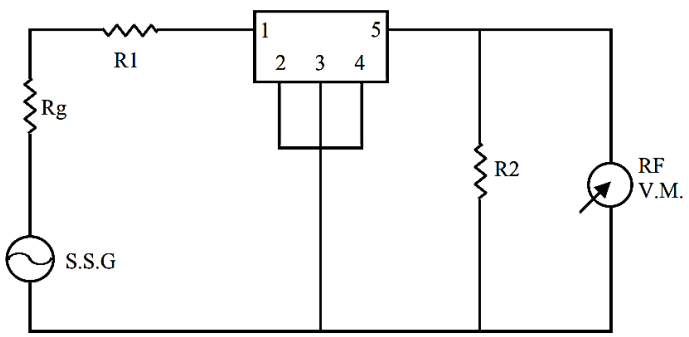


KHZ DIP CERAMIC FILTER GDT TYPE CF W SERIES

GENERAL ELECTRICAL PARAMETERS

PARAMETER	UNITS	VALUE			CONDITION
		MIN.	TYPICAL	MAX.	
Operation Temperance	°C	-20		+85	
Storage Temperance	°C	-40		+85	
Temperature Stability	%			±0.5	@ -20°C ~+85°C
Stop Band Attenuation	dB	40			@f0±100KHz
Ripple	dB			1.0	@f0 ±3KHz~10KHz
Spurious Response	dB	20			@0.1~1.0MHz
Insulation Resistance	MΩ	100			@DC 25V 1 minute
RoHS Status	RoHS/RoHS III compliant, RoHS Annex III lead Exemption (exempt per RoHS EU 2015/863)				

MEASURING CIRCUIT



Rg + R1 = R2 = Input/Output Impedance

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KHZ DIP CERAMIC FILTER GDT TYPE CF W SERIES

MAIN ELECTRICAL PARAMETERS - Ta = 25℃

Part Code	Center Freq. (KHz)	Min. Bandwidth			Max. Insertion Loss @Min. loss point	Max. GDT Ripple Deviation	Input/ Output Impedance
		@3 dB	@6 dB	@50 dB			
		(KHz)			(dB)	(μsec)	(KΩ)
FB450K0000L111	450±1.5	±12.0	±15.0	±30.0	5.0	30 @f0±10KHz	1.5
FB450K0000L112	450±1.5	±10.0	±12.5	±27.5	6.0	30 @f0±10KHz	1.5
FB450K0000L113	450±1.0	±8.0	±10.0	±25.0	7.0	30 @f0±7KHz	1.5
FB450K0000L114	450±1.0	±5.0	±7.50	±20.0	8.0	30 @f0±5.0KHz	1.5
FB450K0000L115	450±1.0	±4.5	±6.0	±17.5	8.0	40 @f0±4.5KHz	2.0
FB450K0000L116	450±1.0	±3.0	±4.5	±15.0	9.0	40 @f0±3.0KHz	2.0
FB455K0000L111	455±1.5	±12.0	±15.0	±30.0	5.0	30 @f0±10KHz	1.5
FB455K0000L112	455±1.5	±10.0	±12.5	±27.5	6.0	30 @f0±10KHz	1.5
FB455K0000L113	455±1.0	±8.0	±10.0	±25.0	7.0	30 @f0±7KHz	1.5
FB455K000LG114	455±1.0	±5.0	±7.50	±20.0	8.0	30 @f0±5.0KHz	1.5
FB455K0000L115	455±1.0	±4.5	±6.0	±17.5	8.0	40 @f0±4.5KHz	2.0
FB455K0000L116	455±1.0	±3.0	±4.5	±15.0	9.0	40 @f0±3.0KHz	2.0

Note

1. Center Frequency f0 is @Center of 6dB Bandwidth.
2. Specification is subject to changed without notice, please contact us for any update
3. The Parameters in the above table are all general specifications. If you need other Parameters, please contact us.

MEASUREMENT

- Measurement Condition: Measurement shall be carried out at the standard temperature of 25±2℃. If no specific requirements, Test can be carried out under 5-35℃.

PHYSICAL CHARACTERISTICS

Test Items	Measurement Condition	Requirement
Random Drop	Filter shall be measured after 3 times random drops from the height of 30cm on concrete floor	No visible damage and it meet Table 1
Vibration	Filter shall be measured after being applied vibration of amplitude of 1.5mm with 10-55Hz band of vibration frequency to each of 3 perpendicular directions for 2 hours	No damage and it meet Table 1.
Solderability	Lead terminals are immersed in aide solder for 5 sec and then immersed in soldering bath of 230±5℃, for 3±0.5 sec.	At least 95% lead terminals shall be covered with solder.
Terminal strength Pulling	After force of 1kg for 10 seconds is applied to each terminal in axial direction, Filter shall be measured.	No damage, no cut-off and it meet Table 1.
Bending	After lead terminals shall be fixed at 2mm from filter's body, they shall be folded up to 90°from their axial directions and folded back to –90°.Then folded back to their axial direction, the speed of folding be each 3 seconds.	No damage, no cut-off and it meet Table 1

ENVIRONMENTAL CHARACTERISTICS

Test Items	Measurement condition	Requirement
Humidity	After being placed in a chamber with 90-95% R.H. at 40±2℃ for 100 hours and then being placed in room temperature for 1 hour, filter shall be measured.	It shall meet Table 1.
Resistance to Solder Heat	After being placed in a chamber with 80±2℃,for 100 hours and then being placed in room temperature for 1 hour , filter shall be measured.	It shall meet Table 1.
High Temperature	After being placed in a chamber with 80±2℃,for 100 hours and then being placed in room temperature for 1 hour , filter shall be measured.	It shall meet Table 1.
Low Temperature	After being placed in a chamber with -20±2℃,for 100 hours and then being placed in room temperature for 1 hour, filter shall be measured.	It shall meet Table 1
Heat Shock	After being kept at room temperature, filter shall be placed at temperature of –55 ℃ , for 30 minutes, then be placed at temperature. 85℃, for 30 minutes. After that returned to –55℃ again. Repeated above cycle for 5 times. After being kept in room temp. for 1 hour, filter shall be measured	It shall meet Table 1.

Table1

Item	Center Frequency	Band width (6dB)	Band width (50dB)	Stop Band Attenuation (fo±100KHz)	Ripple (fo±3.0KHz)	Insertion Loss
Specification	450±1.0KHz Max.	±4.5KHz Min.	±15.0KHz Min.	40dB Min.	1.0dB Max	9.0dB Max

IMPORTANT NOTES AND DISCLAIMER

1. RoHS Compliance: The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU RoHS Directive (EU) 2015/863 EC (RoHS3). RoHS Test Report for this product can be obtained at Download Center.
2. REACH Compliance: REACH substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, REACH Test Report for this product can be obtained at Download Center.
3. All Product parametric performance is indicated in the Electrical Characteristics for the listed herein test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.
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