




SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q1201-FB455K0000L114	
DATE	Dec. 01, 2023	
REVISION	A1	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	<p>KHz Dip Ceramic Filter L11.0*W7.0*H8.0mm 5 Pins CF W Series 455.0KHz, 3dB Bandwidth: ± 5.0KHz Min. Ripple ($f_0 \pm 5$kHz): 1.0dB Max. Insertion Loss. 9.0dB Max.; Input/Output Impedance: 1.5 Kohm; Group Delay Time (GDT) Ripple Deviation: 30.0 μSec. Max. @ F0 +/-5KHz, Operating Temp. Range -20°C ~+80°C, Packed in Bulk RoHS/RoHS III compliant, RoHS Annex III lead Exemption (exempt per RoHS EU 2015/863)</p>	
CUSTOMER		
CUSTOMER PART NO.		
CROSS REF. PART NO.		
ORIGINAL MFG/PART NO.	TGS/CF 455KEW BLH/LTWS455KEx	
PART CODE	FB455K0000L114	

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: Dec. 01, 2023			

CUSTOMER APPROVE	
DATE:	
12/1/2023	

12/1/2023

KHZ DIP CERAMIC FILTER GDT TYPE CF W SERIES

MAIN FEATURE

- KHz Dip Ceramic Filter CF W Series
- Case Dimension L11.0*W7.0*H8.0mm, 5 Pins
- Low Cost And Short Shipment
- Cross More Competitors Part CFWLA Series
- Group Delay Time (GDT)
- 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	455K0000	L	114
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. 455K0000: Frequency range code for 455.0000KHz
3. L: Dip type, Package in bulk
4. 114: Internal Control Code or Special Parameters Code Letter A~Z or digits (1-9)

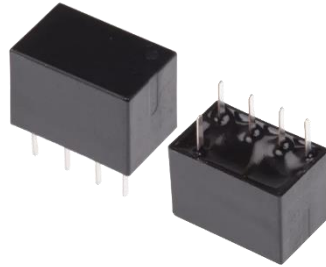
HOW TO ORDER

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

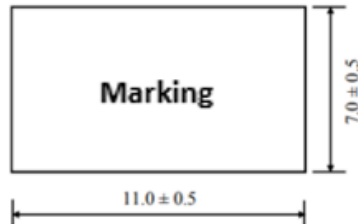
KHZ DIP CERAMIC FILTER GDT TYPE CF W SERIES

DIMENSION (Unit: mm)

Image for reference



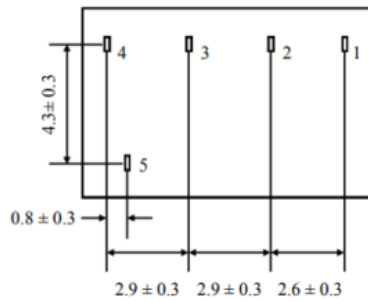
Top View



Marking

Line 1: Series Code
Line 2: Frequency Range
+ Internal Code

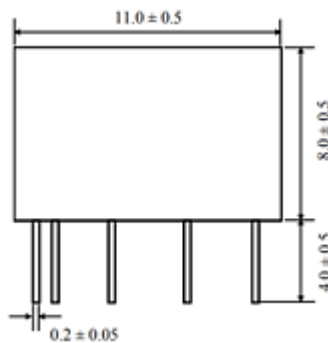
Bottom View



Connection

Pin 1: Input
Pin 2, Pin 3, Pin 4: Ground
Pin 5: Output

Side View



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ELECTRICAL PARAMETERS

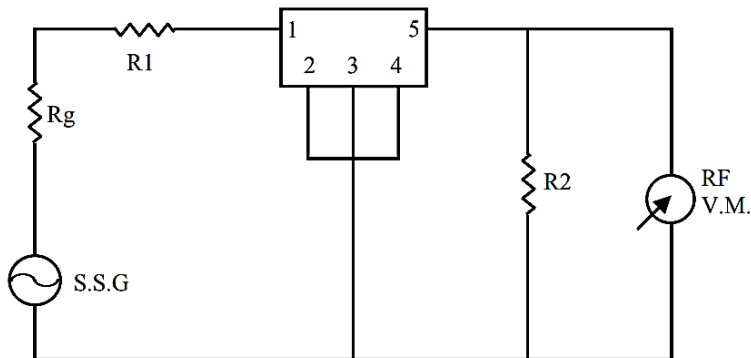
PARAMETER	PART NO. SYMBOL	UNITS	VALUE			CONDITION	
			MIN.	TYPICAL	MAX.		
Original Manufacturer	TGS	TGS Crystals					
Holder Type	CF	KHz Dip Ceramic Filter					
Frequency Range (f0)	455	KHz	455.00			@fo±1.0KHz, 6dB Bandwidth	
GDT Ripple deviation	K	µSec			30.0	@fo±2.0 kHz	
Operation Temperature	E	°C	-20		+80		
Storage Temperature		°C	-40		+85		
Stop Band Attenuation		dB	40			@fo±100KHz	
Bandwidth		KHz		±5.0			@3 dB
				±7.5			@6 dB
				±20.0			@40 dB
Insertion Loss (At minimum loss point)			dB			9.0	
Temperature Stability			%			±0.5	@ -20°C ~+80°C
Ripple			dB			1.0	@f0±2.0KHz
Spurious Response			dB	20.0			@0.1~1.0MHz
Input/Output Impedance			KΩ	1.5			
Insulation Resistance			MΩ	100			@DC 25V 1 minute)
Pads Code	W		L11.0*W7.0*H8.0mm 5 Pins				
Other	Package	B	In Bulk				
	RoHS Status	LH	RoHS/RoHS III compliant, RoHS Annex III lead Exemption (exempt per RoHS EU 2015/863				
	Add Value		N/A				
	Special Code		For Internal Control, Blank: N/A				

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GENERAL ELECTRICAL PARAMETERS

PARAMETER	UNITS	VALUE			CONDITION
		MIN.	TYPICAL	MAX.	
Operation Temperature	°C	-20		+85	
Storage Temperature	°C	-40		+85	
Temperature Stability	%			±0.5	@ -20°C ~+80°C
Insulation Resistance	MΩ	100			@DC 100V 1 minute
RoHS Status	RoHS/RoHS III compliant, RoHS Annex III lead Exemption (exempt per RoHS EU 2015/863)				

MEASURING CIRCUIT



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MEASUREMENT

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

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°C, 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

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ENVIRONMENTAL CHARACTERISTICS

Test Items	Measurement condition	Requirement
Humidity	After being placed in a chamber with 90-95% R.H. at 40±2°C 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°C, 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°C, 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°C, 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 °C, for 30 minutes, then be placed at temperature. 85°C, for 30 minutes. After that returned to -55°C 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)	Selectivity (50dB)	Stop Band Attenuation (fo±100KHz)	Ripple	Insertion Loss
Specification	455±1.0KHz Max.	±7.5KHz Min.	±20.0 KHz Max.	35.0dB Min.	1.0dB Max.	9.0dB Max.

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IMPORTANT NOTES AND DISCLAIMER

1. 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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