




SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q0718-CB1000K000L100
DATE	Jul. 18, 2023
REVISION	A0
DESCRIPTION	Thru-Hole Ceramic Resonator, L5.1*W6.3*H2.3mm, 2 Pins 1000.0KHz, CRB Series Frequency Accuracy $\pm 0.5\%$, Operating Temp. Range $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$ RoHS/RoHS III compliant Packed in Bulk
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	TGS CRB 1000KJ BLF
PART CODE	CB1000K000L100

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: Jul. 18, 2023			

CUSTOMER APPROVE	
DATE:	

KHZ THRU-HOLE CERAMIC RESONATOR CRB SERIES

MAIN FEATURE

- MHz Thru-Hole Ceramic Resonator 2 pins
- Cross more competitors part
- RoHS/RoHS III compliant



APPLICATION

- Measurement Instrument
- Communication Electronics

PART CODE GUIDE

RFQ

[Request For Quotation](#)

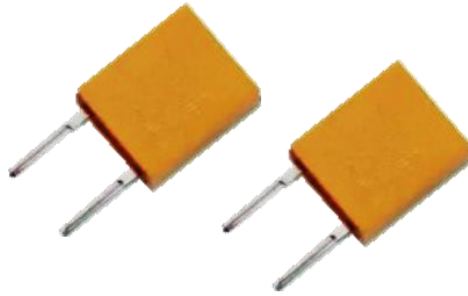
CB	1000K000	L	100
1	2	3	4

- 1) CB: Part family Code for KHz Thru-Hole Ceramic Resonator, L5.1*W6.3*H2.3mm, 2 Pins, CRB series
- 2) 1000K000: Frequency range code for 1000.0KHz
- 3) L: Packed in Bulk
- 4) 100: Internal code (A~Z or 1~9 or Blank) for custom specification

KHZ THRU-HOLE CERAMIC RESONATOR CRB SERIES

DIMENSION (Unit: mm)

Image for reference

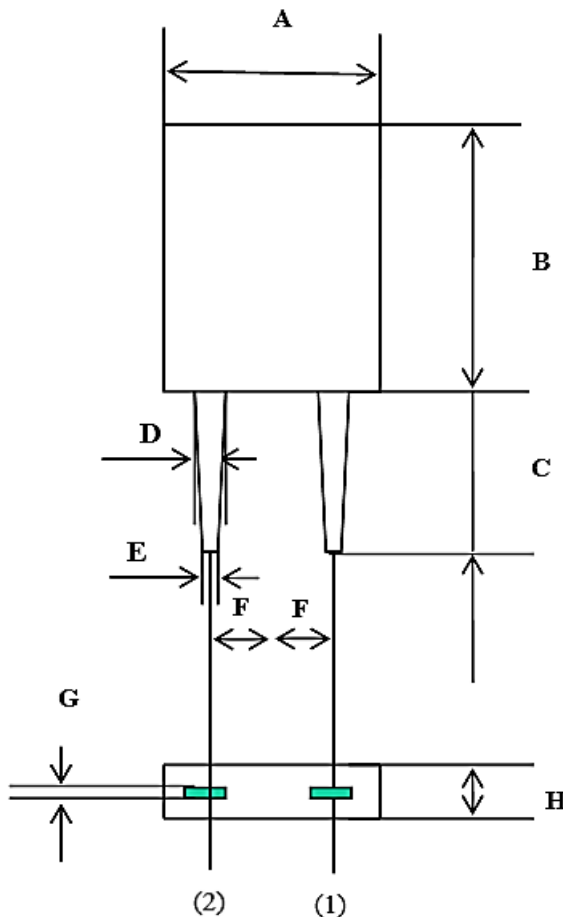


Marking

Line 1: Series code

Line 2: Frequency range + Special code

CRB



A	5.10±0.30
B	6.30±0.30
C	4.50±0.50
D	0.90±0.10
E	0.70±0.10
F	1.25±0.20
G	0.15±0.03
H	2.30±0.30

(1)	Input
(2)	Output

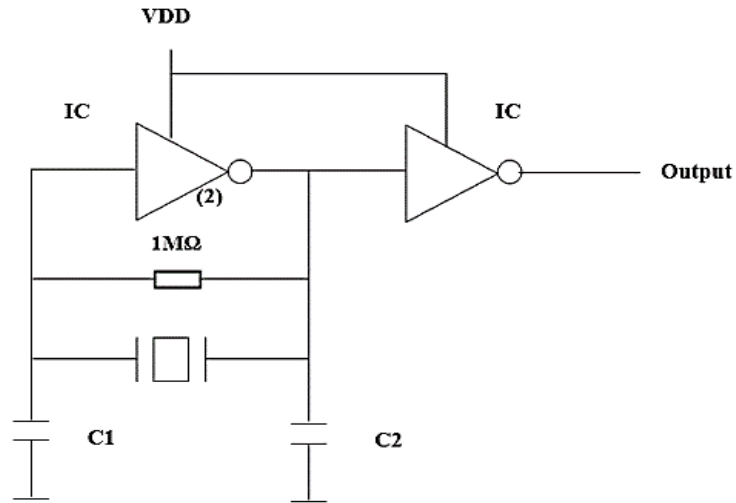
KHZ THRU-HOLE CERAMIC RESONATOR CRB SERIES
ELECTRICAL PARAMETERS

Parameter	Part No. Symbol	Units	Value			Condition	
			Min.	Typical	Max.		
Original Manufacturer	TGS	TGS Crystals					
Holder Type	CRB	KHz Thru-Hole Ceramic Resonator , L5.1*W6.3*H2.3mm, 2 Pins					
Frequency Range	1000K	KHz	1000.0				
Withstanding Voltage	J	V			100	@DC, 1 min	
Insulation Resistance		MΩ	500			@100V, 1 min.	
Operation Temperature		°C	-40			+80	
Storage Temperature		°C	-30			+85	
Rating Voltage		V	6.0			DC	
			15			p-p	
Frequency Accuracy		%	±0.5				
Resonant Impedance		Ω			100		
Temperature Coefficient of Oscillation Frequency	%			±0.3	Oscillation Frequency drift, -40°C ~ +80°C)		
Oscillation Frequency Aging Rate (10 years)	%			±0.5	From initial value		
IC Application		1/6TC4069UBP					
Capacitance (C1/C2)		pF	100				
Other	Package	B	Packed in BULK				
	RoHS Status	LF	RoHS III compliant				
	Add Value		N/A				
	Internal Control Code		N/A				

 Note: Original Part Number: **TGS CRB 1000KJ BLF**

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TEST CIRCUIT (For Reference Only)



C1=C2=100PF

IC= 1/6CD4069UBE

VDD=+5V

Note:

Parts shall be tested under the condition (Temp.:3~35°C. Hum.:45~85%.) unless the any necessity to measure under a standard condition(Temp.: 20±2 °C, Humidity :65±5% R.H.) is occurred.

KHZ THRU-HOLE CERAMIC RESONATOR CRB SERIES

PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

Item	Condition	Requirements
Lead Strength Lead Pulling Lead Bending	Applied to vertical weight 1Kg along with the direction of lead without any shock for 5-10sec. Filter lead shall be subjected to withstand against 90°bending its stem. This operation shall be done toward both direction.	No mechanical damage and the measured values shall meet Item 5.
Solderability	Dip the terminals of the filter no closer than 1.5mm into a soldering bath(230±5°C) for 5±1 sec. (refer to MIL-STD-202E-208C)	The solder shall be for coat at least 95% of the terminal surface
Vibration	Filter shall be measured after being applied vibration as below Vibration Freq: 10-55HZ Amplitude : 1.5 mm Directions: 3 axial directions Time: 1 hour/each direction	No visible damage and the measured value shall meet table 1
Random Drop	Filter shall be measured after 3 times random dropping from the height of 76 cm. concrete floor.	
Resistance to Soldering Heat	Filter immersing the terminals up to 1.5 mm to filter’s body in soldering bath (350 ±10°C) for 3 sec., filter shall be measure after being placed in natural condition for 1 hour.	The measured value shall meet table 1.

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PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

Item	Condition	Requirements
Humidity	After being placed in a chamber (Humid, :90-95% RH Temp.:40 + 2°C) for 100 hours filter shall be measured after placed in natural condition for 1 hour	The measured value shall meet Table 1.
Life Test (High temperature)	After being placed in a chamber 85+2°C for 100 hours ,filter shall be measured after being placed in natural condition for 1 hour.	
Life Test (Low temperature)	Placed in a chamber (Temp:-55+ 2°C) for 100 hours, filter shall be measured placed in natural condition for 1 hour.	
Thermal Shock	After temperature cycling of -55°C(30 minutes) to +85°C (30 minutes) was performed 5 times with a transfer time15 min filter shall be measured after being placed in natural condition for 1 hour	

Table 1

Item	Limit Value
Center Frequency	± 1.0 kHz max

Note: The limits in the above table are referenced to the initial Measurements.

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CAUTION

- 1) Don't apply excess mechanical stress to the component and terminals at soldering. Do not use this product with bend.
- 2) Do not clean or wash the component for it is not hermetically sealed.
- 3) Do not use strong acidity flux, more than 0.2wt% chlorine content, in flow soldering.
- 4) Don't be close to fire.
- 5) This specification mentions the quality of the component as a single unit. Please insure the component is thoroughly evaluated in your application circuit
- 6) Expire date (Shelf life) of the products is 12 months after delivery under the conditions of a sealed and an unopened. package. Please use the products within 12 months after delivery. If you store the products for a long time (more than 12 months), use carefully because the products may be degraded in the solderability or rusty. Please confirm solderability and characteristics for the products regularly.
- 7) Please contact us before using the product as automobile electronic component.

DISCLAIMER

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7/18/2023