




**SPECIFICATION SHEET**

<b>SPECIFICATION SHEET NO.</b>	Q0522-FK10M70000SVS2
<b>DATE</b>	May 22, 2023
<b>REVISION</b>	A0
<b>DESCRIPTION</b>	SMD MHz Ceramic Filter, L7.0*W3.0*H1.5mm, 3 Pads, CF73 Series 10.700MHz 3dB Band Width kHz: 230+/-50KHz, Insertion Loss: 3.5+/-2.0 dB. Impedance: 330 ohm Operating Temp. Range -20°C ~+80°C, Packed in Tape/Reel, 4000pcs/Reel RoHS/RoHS III compliant
<b>CUSTOMER</b>	
<b>CUSTOMER PART NUMBER</b>	
<b>CROSS REF. PART NUMBER</b>	
<b>ORIGINAL PART NUMBER</b>	TGS CF73 10.7MVS2 TLF
<b>PART CODE</b>	FK10M70000SVS2

<b>VENDOR APPROVE</b>			
Issued/Checked/Approved			
DATE: May 22, 2023			

<b>CUSTOMER APPROVE</b>	
DATE:	

5/24/2023

**SMD MHZ CERAMIC FILTER CF73 SERIES VS2 TYPE**

**MAIN FEATURE**

- SMD MHz Ceramic Filter, L7.0\*W3.0\*H1.5mm, 3 Pads
- Low cost & short lead time.
- Cross more competitors part SFECF/SFECV Series
- RoHS/RoHS III compliant



**APPLICATION**

- Communication Electronics and more

**PART CODE GUIDE**

**RFQ**

[Request For Quotation](#)

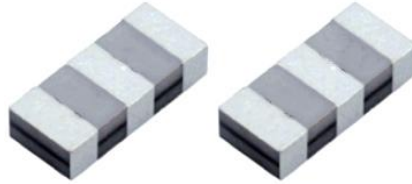
FK	10M70000	S	VS2
1	2	3	4

- 1) FK: Part family Code for SMD MHz Ceramic Filter, L7.0\*W3.0\*H1.5mm, 3 Pads, CF73 series
- 2) 10M70000: Frequency range code for 10.70000MHz
- 3) S: Packed in Tape/Reel
- 4) VS2: Specification code for original Part No. TGS CF73 10.7MVS2 TLF

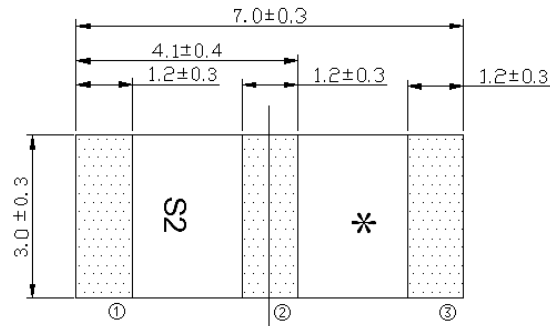
**SMD MHZ CERAMIC FILTER CF73 SERIES VS2 TYPE**

**DIMENSION (Unit: mm)**

Image for reference



CF73

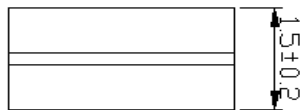
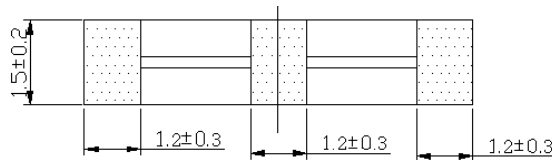


\*: QC Code

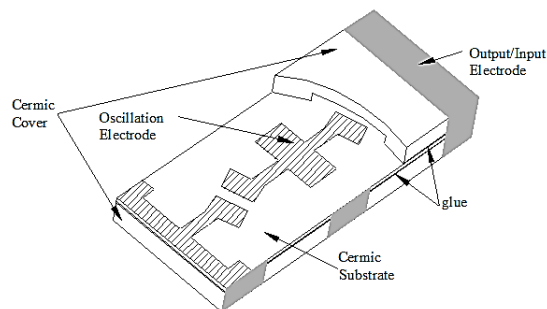
(1): Input

(2): Ground

(3): Output



**Structure**



**SMD MHZ CERAMIC FILTER CF73 SERIES VS2 TYPE**
**ELECTRICAL PARAMETERS**

Parameter	Part No. Symbol	Units	Value			Condition
			Min.	Typical	Max.	
Original Manufacturer	TGS	TGS Crystals				
Holder Type	CF73	SMD MHz Ceramic Filter, L7.0*W3.0*H1.5mm, 3 Pads				
Center Frequency (f0)	10.7M	MHz	10.7000		@+/-30KHz	
Bandwidth	VS2	kHz	180	230	280	@3 dB
Bandwidth		kHz			510	@20 dB
Ripple		dB			1.0	within 3dB bandwidth
Insertion Loss		dB	1.5	3.5	5.5	@Min.loss point
Temp. Characteristic		%			±0.5	@-20°C ~ +80°C
Spurious Response		dB	35			@9.0 ~ 12.0MHz
Input/Output Impedance		Ω		330		
Insulation Resistance		MΩ	100			@ 10V 1 min.
Withstand DC Voltage		V			50	@ DC, 1 min
Operating Temp. Range		°C	-20		+80	
Storage Temp. Range	°C	-40		+85		
Others	Package	T	Packed in Tape/Reel			
	RoHS Status	LF	RoHS III compliant			
	Add Value		N/A			
	Internal Control Code *		N/A			

 Note: Original Part Number: **TGS CF73 10.7MVS2 TLF**

**SMD MHZ CERAMIC FILTER CF73 SERIES VS2 TYPE**

**RELIABILITY**

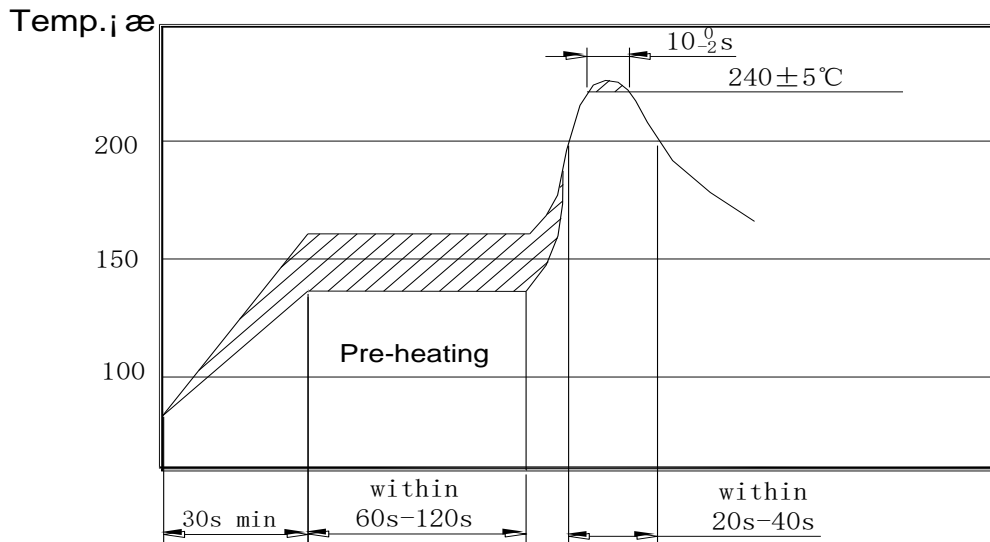
Test Items	Test Method And Conditions	Requirement
<b>Humidity</b>	After being placed in a chamber with 90-95% R.H. at 40±2°C for 96 hours and then being placed in room temperature for 1 hour, filter shall be measured.	It shall fulfill Table 1.
<b>High Temperature</b>	After being placed in a chamber with 85±2 °C, for 96 hours and then being placed in room temperature for 1 hour, filter shall be measured.	It shall fulfill Table 1.
<b>Low Temperature</b>	After being placed in a chamber with -40±2 °C, for 96 hours and then being placed in room temperature for 1 hour, filter shall be measured.	It shall fulfill Table 1.
<b>Temperature Cycling</b>	After temperature cycling of blow table was performed 5 times, Filter shall be measured after being placed in natural conditions for 1h. Temp.: -20±3°C, Time: 30±3 min ; Temp.: -80±3°C, Time: 30±3 min.	It shall fulfill Table 1.
<b>Vibration</b>	Subject the filter to vibration for 2h. Each in x y and z axis with the amplitude of 1.5mm, The frequency shall be varied uniformly between the limits of 10Hz-55Hz-10Hz and then filter shall be measured.	It shall fulfill Table 1.
<b>Mechanical Shock</b>	Filter shall be measured after 3 times random dropping from the height of 1m on the wooden plate.	No visible damage. it shall fulfill Table 1
<b>Soldering Test</b>	Passed through the reflow oven under the following condition, and left at room temp. for 24 hours before measurement.	It shall fulfill Table 1.
<b>Solderability</b>	Dipped in 235°C±5°C solder bath for 3s±0.5s with rosin flux (25wt% ethanol solution.)	The terminals shall be at least 95% covered by solder.
<b>Board Bending</b>	Mount on a glass-epoxy board (width =50mm, thickness=1.6mm), then bend it to 1mm displacement (velocity= 1mm/s) and keep it for 5s.	Mechanical damage such as break shall not occur

**SMD MHZ CERAMIC FILTER CF73 SERIES VS2 TYPE**

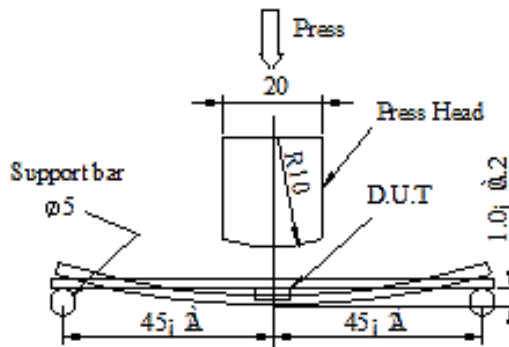
**Table 1**

Test Items	Characteristics after test
Center Frequency Drift	±30 kHz Max.
Insertion Loss Drift	±2.0 dB Max.
3dB Bandwidth Drift	±25 kHz Max.
20dB Bandwidth Drift	±60 kHz Max.

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



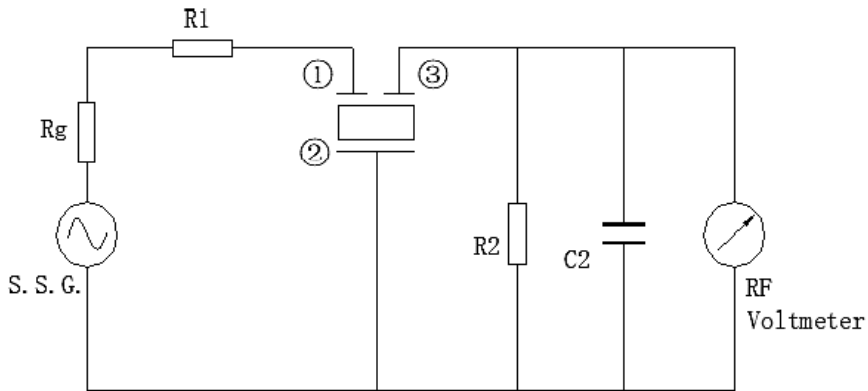
**Soldering Test**



**Board Bending**

**SMD MHZ CERAMIC FILTER CF73 SERIES VS2 TYPE**

**TEST CIRCUIT (For Reference Only)**



$$R1+Rg =R2=330\Omega\pm5\%,Rg=50\Omega$$

C2=10 PF (Including stray capacitance and capacitance of RF Voltmeter)

S.S.G:Output Voltmeter

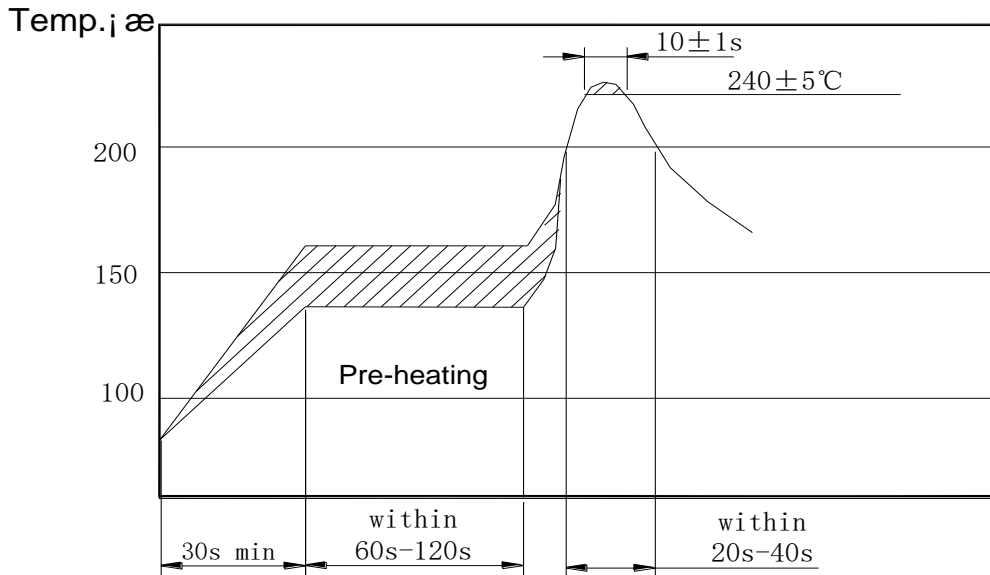
(1): Input (2): Ground (3): Output

**Note:**

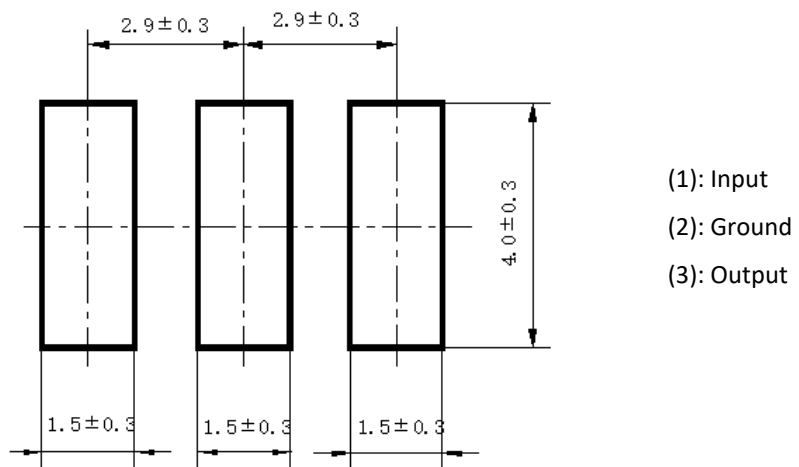
Parts shall be tested under the condition ( Temp.:  $20\pm 15^{\circ}\text{C}$ , Humidity  $65\pm 20\%$  R.H.) unless the standard condition (Temp.:  $25\pm 3^{\circ}\text{C}$ , Humidity :  $65\pm 10\%$  R.H.) is regulated to measure.

**SMD MHZ CERAMIC FILTER CF73 SERIES VS2 TYPE**

**RECOMMENDED REFLOW SOLDERING STANDARD CONDITION**



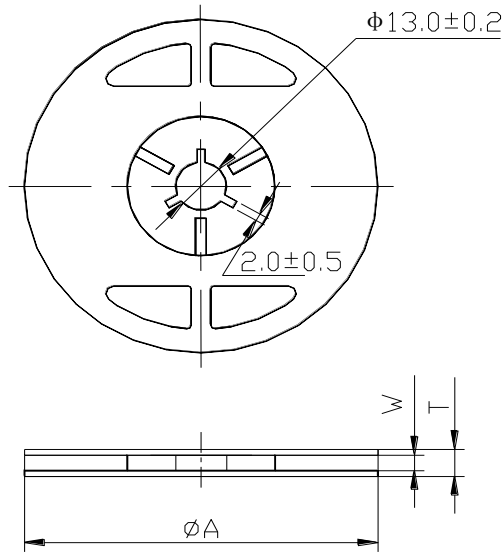
**RECOMMENDED LAND PATTERN**



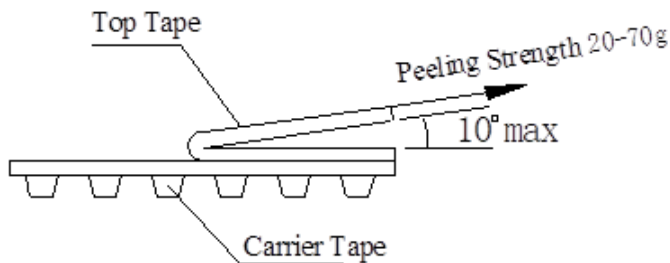
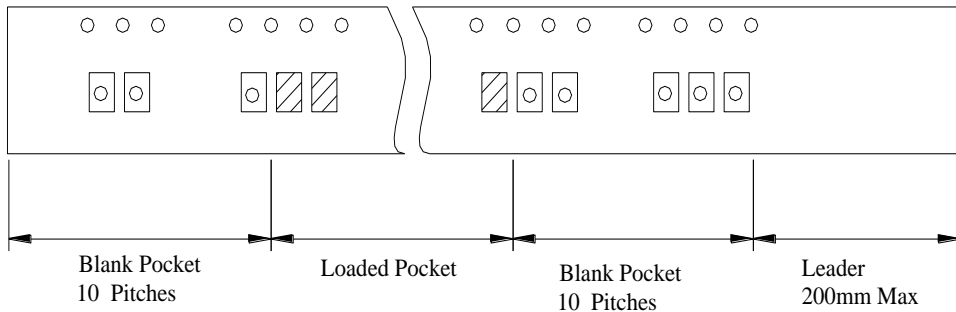


**SMD MHZ CERAMIC FILTER CF73 SERIES VS2 TYPE**

**TPAE/REEL DIMENSIONS (mm)**



$\phi A$	$W$	$T$	Pieces per reel	Carrier tape size
$330 \pm 3$	16.4min	22.4max	4000 typ.	16



## SMD MHZ CERAMIC FILTER CF73 SERIES VS2 TYPE

### NOTES

- Don't apply excess mechanical stress to the component and terminals at soldering. Do not use this product with bend.
- Do not clean or wash the component for it is not hermetically sealed.
- Do not use strong acidity flux, more than 0.2wt% chlorine content, in flow soldering.
- Don't be close to fire.
- This specification mentions the quality of the component as a single unit. Please insure the component is thoroughly evaluated in your application circuit
- 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 solder-ability or rusty. Please confirm solder-ability and characteristics for the products regularly.
- Exposure components under soldering condition that is exceeding our recommendation will increase the failure dangerous.
- Please contact us before using the product as automobile electronic component.
- Please return one of these specifications after your signature of acceptance.
- When something gets doubtful with this specifications, we shall jointly work to get an agreement.
- For questions on technology, prices and delivery, please contact our sales offices or e-mail:  
[sales@NextGenComponent.com](mailto:sales@NextGenComponent.com) .

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