

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	Q0114- RB20M00000L515
DATE	Jan. 14, 2023
REVISION	A0
DESCRIPTION	MHz Thru-Hole Crystal Oscillator, L13.2*W13.2*H5.08mm, Half-Size/8 pin, CO8 series 20.00000MHz, 5.0V, +/-50ppm, Symmetry 45/55, Operating Temp. Range -40°C ~+85°C, HCMOS//50pF, Supply Current 20mA Max, Tristate Via Pin 1 Thru-Hole type, Packed in Tube, 40pcs/Tube RoHS/RoHS III compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	TGS CO851BGI05 BLF-20M000
PART CODE	RB20M00000L515

VENDOR APPROVE

Issued/Checked/Approved



DATE: Jan. 14, 2023

CUSTOMER APPROVE

DATE:

1/14/2023

MHZ THRU-HOLE CRYSTAL OSCILLATOR CO8 SERIES

MAIN FEATURE

- MHz Thru-Hole Crystal Oscillator, L13.2*W13.2*H5.08mm
- Industry-standard
- Hermetically sealed package for reliability
- Tristate function -Enable
- Cross more competitors part
- RoHS/RoHS III compliant



APPLICATION

- Communication Electronics

PART CODE GUIDE

RFQ

[Request For Quotation](#)

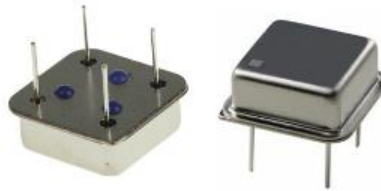
RB	20M00000	L	515
1	2	3	4

- 1) RB: Part family Code for MHz Thru-Hole Crystal Oscillator, L13.2*W13.2*H5.08mm, Half-Size/8 pin, CO8 series
- 2) 20M00000: Frequency range code for 20.00000MHz
- 3) L: Thru Hole type, Packed in Tube, 40pcs/Tube
- 4) 515: Specification code for original part No.: **TGS CO851BGI05 BLF-20M000**

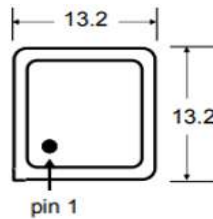
MHZ THRU-HOLE CRYSTAL OSCILLATOR CO8 SERIES

DIMENSION (Unit: mm, Tol. +/-0.15mm)

Image for reference

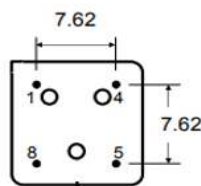
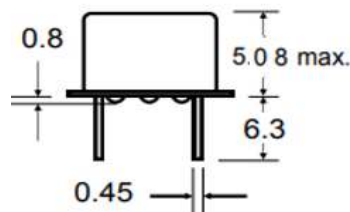


CO8



Marking 1

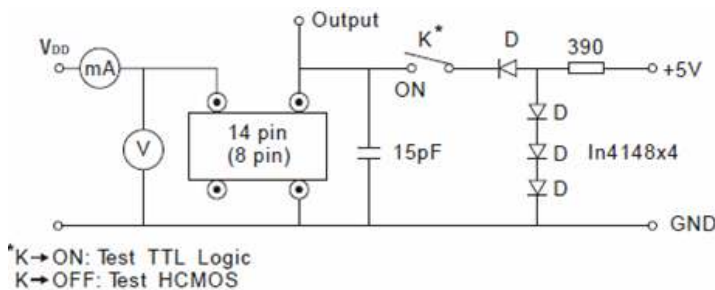
Line 1: 20.00000
Line 2: Special Code



Pin Function

- #1 Tristate Enable Via #1
- #4 Ground
- #5 Output
- #8 VDD

Circuit Principle



MHZ THRU-HOLE CRYSTAL OSCILLATOR CO8 SERIES
ELECTRICAL PARAMETERS

Parameter		Part No. Symbol	Units	Value			Condition
				Min.	Typical	Max.	
Original Manufacturer		TGS	TGS Crystals				
Holder Type		CO8	MHz Thru-Hole Crystal Oscillator, CO8 Series, L13.2*W13.2*H5.08mm, Half-Size/8 pin				
Supply Voltage		5	V	5.0		+/-10%	
Enable/Disable -Tristate Function		1		Tristate function - Enable		@ Control via pin 1	
Overall Freq. Tolerance		B	ppm	-50		+50	@25°C
Operating Temp. Range		G	°C	-40		+85	
Storage Temp. Range			°C	-55		+125	
Symmetry		I	%	45		55	
Output	V OH		V	90%			High (Logic "1")
	V OL		V			10%	Low (Logic "0")
	Load		pF	50			
Output Waveform		05		HCMOS			@OutputLoad 50pF
Startup Time			ms			10	
Supply Current			mA			20	
Rise/ Fall time			ns			10	
Phase Jitter			ps		N/A		
Aging			ppm/year			±3	@1 st year
Others	Package	B	Thru - Hole type, Packed in Tube, 40pcs/Tube				
	RoHS Status	LF	RoHS III compliant				
	Add Value		N/A				
	Internal Control Code *		N/A				
Frequency Range		20M000	20.00000MHz				

Note: 1) Original Part Number: **TGS CO851BGI05 BLF-20M000**

2) * Internal Control Code- 2 letter or digits; Blank: N/A

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MHZ THRU-HOLE CRYSTAL OSCILLATOR CO8 SERIES

ENVIRONMENTAL AND TECHNICAL CONDITIONS

Test Items	Test Method And Conditions
Temperature Cycle	Mil-std 883, Method 1010, 10 Cycles -20° C To 85° C
Shock	Mil-std-202, Method 213, Test Condition C
Vibration	Mil-std-202, Method 204, Test Condition A
Resistance To Soldering Heat	Mil-std-202, Method 210, Test Condition B
Humidity	85% Relative Humidity At 85° C 250 Hours
Gross Leak Test	Mil-std-883, Method 1014, Test Condition C
Fine Leak Test	Mil-std-883, Method 1014, Test Condition A
Terminal Strength	Mil-std-202, Method 211, Test Condition A And C
Moisture Resistance	Moisture Resistance Mil-std 202, Method 106, Omit Step 7b
Solderability	Mil-std-202, Method 208, 95% Coverage
Solvent Resistance	Mil-std-202, Method 2002, Method 215

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