NextGen Components,Inc.

# PART CODE: XG25M00000L416

## SPECIFICATION SHEET

| | |
|---|---|
| **SPECIFICATION SHEET NO.** | Q0531 - XG25M00000L416 |
| **DATE** | MAY 31, 2023 |
| **REVISION** | A0 |
| **DESCRIPITION** | MHz DIP Crystal, L7.9*W3.2*H8.2mm, UM-1 Type, 2 Pins, CA Series<br>25.000MHz, +/-30ppm, 16pF, Stability +/-50ppm @Operating Temperature Range -40°C ~+85°C, ESR 70 ohm Max,<br>Reflow Profile Condition 260 °C Max.<br>RoHS/RoHS III compliant<br>Package in Bulk |
| **CUSTOMER** | |
| **CUSTOMER PART NUMBER** | |
| **CROSS REF. PART NUMBER** | |
| **ORIGINAL PART NUMBER** | TGS CA 25M0A30-16-50-40-70 BLF |
| **PART CODE** | XG25M00000L416 |

| **VENDOR APPROVE** |
|---|
| Issued/Checked/Approved<br>NextGen Components, Inc. Mandy Xu<br>NextGen Components, Inc. Ruby Zhang<br>NextGen Components, Inc. Jack Zhang |
| DATE: MAY 31, 2023 |

| **CUSTOMER APPROVE** |
|---|
| |
| DATE: |



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# DIP MHZ CRYSTAL UM-1 TYPE 2 PINS CA SERIES

## MAIN FEATURE

- MHz DIP Crystal, UM-1 Type, L7.9*W3.2*H8.2mm, 2pins, CA SERIES
- Low Cost, High precision, High frequency stability
- Cross More Competitors Part
- RoHS/RoHS III compliant

## APPLICATION

- Measurement Instrument
- Communication Electronics

## PART CODE GUIDE

RFQ
Request For Quotation

| XG | 25M00000 | L | 416 |
|---|---|---|---|
| 1 | 2 | 3 | 4 |

1) XG: Part family Code for MHz DIP Crystal, L7.9*W3.2*H8.2mm, UM-1 Type, 2 Pins, CA series

2) 25M00000: Frequency range code for 25.000MHz

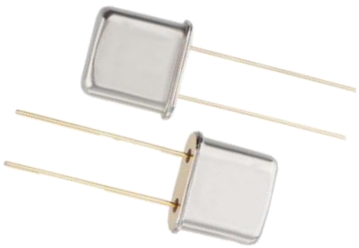
3) L: DIP type, Bulk Package

4) 416: Specification code for original part no. **TGS CA 25M0A30-16-50-40-70 BLF**

# DIP MHZ CRYSTAL UM-1 TYPE 2 PINS CA SERIES

## DIMENSION (Unit: mm)

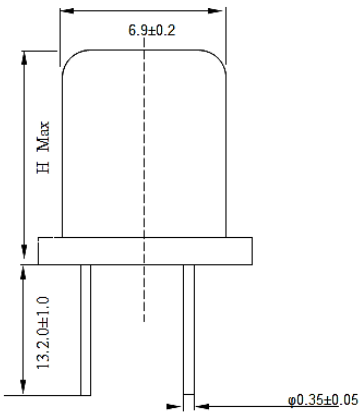
**Image for reference**



**CA series**

L7.9*W3.2*H8.2mm,

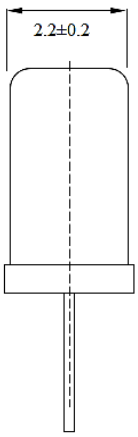
UM-1 Type, H: 8.2mm

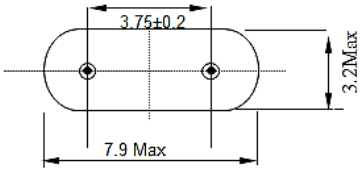



**Marking**

Frequency Range

or Internal control code



NextGen Components,Inc.

PART CODE: **XG25M00000L416**

# DIP MHZ CRYSTAL UM-1 TYPE 2 PINS CA SERIES

## ELECTRICAL PARAMETERS

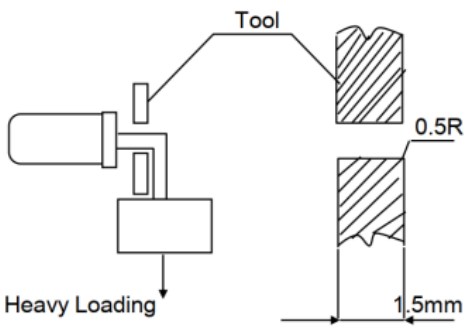
| Parameter | | Part No. Symbol | Units | Value | | | Condition |
|---|---|---|---|---|---|---|---|
| | | | | Min. | Typical | Max. | |
| **Original Manufacturer** | | TGS | TGS Crystals | | | | |
| **Holder Type** | | CA | MHz DIP Crystal, UM-1 Type L7.9*W3.2*H8.2mm, 2 Pins | | | | |
| **Frequency Range** | | 25M0 | MHz | 25.000 | | | |
| **Mode of Oscillation** | | A | | AT Fundamental | | | |
| **Frequency Tolerance** | | 30 | ppm | -30 | | +30 | @25°C |
| **Load Capacitance** | | -16 | pF | 16 | | | |
| **Stability over Operation Temperance** | | -50 | ppm | -50 | | +50 | |
| **Operation Temperance** | | -40 | °C | -40 | | +85 | |
| **Storage Temperance** | | | °C | -55 | | +125 | |
| **Equivalent Series Resistance (ESR)** | | 70 | Ω | | | 70 | |
| **Drive Level** | | | µW | | | 100 | |
| **Shunt Capacitance (C0)** | | | pF | 0 | | 7.0 | |
| **Motional Capacitance (C1)** | | | fF | N/A | | | |
| **DLD2** | | | Ω | N/A | | | |
| **FLD2** | | | ppm | N/A | | | |
| **RDL2** | | | Ω | N/A | | | |
| **SPDB** | | | dB | N/A | | | |
| **Aging** | | | ppm/year | | | ±5 | @1st year |
| **Insulation Resistance** | | | MΩ | 500 | | | @100VDC ± 15VDC |
| **Others** | **Package** | B | Bulk | | | | |
| | **RoHS Status** | LF | RoHS III compliant | | | | |
| | **Add Value** | | N/A | | | | |
| | **Internal Control Code** * | | N/A | | | | |

Note: Original Part Number: **TGS CA 25M0A30-16-50-40-70 BLF**

## RELIABILITY

| Test Items | Test Method And Conditions | Specification No: |
|---|---|---|
| **Shock** | Orient the sample in any attitude and drop in three times form a height of 75 cm onto a hardwood board with a thickness of 3 cm | A |
| **Vibration** | Subject the sample to 1--2 minute cycles of frequencies of 10 to 55Hz and amplitudes of 1.5mm fo two hours in each of the x, y and z directions or for 6 hours in total | A |
| **Tesile strength of terminal** | apply a 1.5kg tensile load to each terminal and sustain it for 30±5 seconds | A.C |
| **Solderability** | Dip terminals in a 230±5℃ solder bath for 5±0.5 seconds the solder shall leave an undipped terminal length of 2mm at their base | D |
| **Resistance to Soldering heat** | Dip the terminals in a 260±℃ solder bath for 10±0.5 seconds the solder shall leave an undipped terminal length of 2mm at their base | A |
| **Leakage test** | Take measurements with a heliun leakage | E |
| **Thermal shock** | Subject the sample to 5 temperature variation cycles at -40℃ for 30 minutes and +100℃ for the next 30 minutes in each cycle | A |
| **Cold** | Expose the sample in an inoperative mode to 500 hours in a -40℃ environment | A |

## RELIABILITY

| Test Items | Test Method And Conditions | Specification No: |
|---|---|---|
| **Cold** | Expose the sample in an inoperative mode to 500 hours in a -40℃ environment | A |
| **Dry heat** | Expose the sample in an inoperative mode to 500 hours of a +85℃ environment | B |
| **Damp heat** | Expose the sample in an inoperative mode to 500 hours of a +65℃ to 95% RH environment | B |
| **Bending Strength of terminal** | Apply a 500g load to one of the terminals and after tilting the main unit resonator for 90°, restore to its original attitude .Then tilt it in an opposite direction for 90°, and restore to its original attitude   | A.C |

# DIP MHZ CRYSTAL UM-1 TYPE 2 PINS CA SERIES

## SPECIFICATIONS

| NO | SPECIFCATIONS REQUESTED |
|---|---|
| A | Any variation between the pre-and post-test frequencies shall remain within ±5 ppm , The post-test quivalent series resistance shall pemain within ics specified tolerance range |
| B | Any variation between the pre-and post-test frequencies shall remain within ±10 ppm , The post-test quivalent series resistance shall pemain within ics specified tolerance range |
| C | After each test, no visible damage shall be nanifested, nor shall the hermetic seal break down |
| D | At least 90% of each dipped area shall be covered by fresh solder |
| E | The post-test leakage factor shall be 10-7 mbar.1/sec max |

## DISCLAIMER

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## NextGen Components:

P6SMB200A BZT52C24 SDR315M000S011 BZT52B7V5 P4SMA15CA SMDJ6.5A MMSZ5252B P4SMA68CA YP32K76800S103 SAR303M825S032 BZT52B47 P4SMA39CA BZT52B20 1SMA4751A BZT52B13 P4SMA30A P6SMB27A BZT52C8V2S SMDJ43CA P6SMB150CA P4SMA12A FK10M70000S0AJ YP32K76800S601 1SMA4745A MM1W16 SIR315M000S042 SMDJ30CA P6SMB24CA P6SMB150A SDR319M508S012