RELM componentes

SHOULDER

ZTA...MT Ceramic Resonator

DESCRIPTION

The ZTA MT series ceramic resonator is the miniature low profile frequency control products. It is of very competitive price than quartz crystal parts and of high stability that make of substitute the quartz crystal when need lower price.

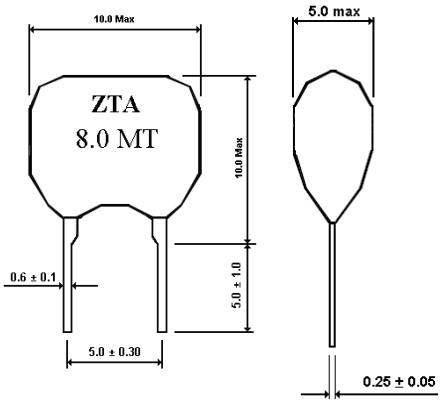
ELECTRICAL SPECIFICATION

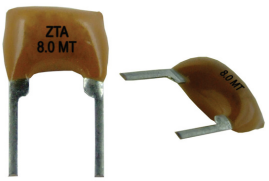
Frequency Range		6.01 to 13.00MHz
Frequency Tolerance (at 25˚C)		±0.5% Maximum
Temperature Drift of Oscillate Frequency		±0,3% Maximum
Resonant Impedance Frequency		25Ω Maximum
Insulate Resistance		100MΩ minimum
Withstanding Voltage D.C		100V (max. 5 seconds)
Voltage	D.C. Voltage	6V Maximum
	Input Voltage	15Vpp Maximum
Built - in Capacitance		-
Operating Temperature Range		-20˚C to +80˚C
Storage Temperature Range		-55˚C to +85˚C
Aging (at 25˚C)		±0.3%

PHYSICAL AND ENVIRONMENTAL CHARACTERISTICS

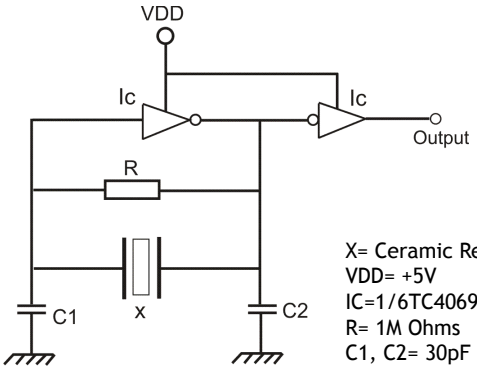
Conditions	Results
1. Terminal Strength	
Force of 1Kg is applied to each lead in axial direction, keep for 10sec, then force of 0.5kg is applied to each lead is aerial direction. The lead shall be bend 90˚degree in one direction, then in the opposite direction and return to normal	Non-evident damage
2. Resistance to soldering heat	
Lead terminals are immersed up to 2.0mm of body in a solder bath (260 ±5˚C), keep fot 5sec. ±0.5sec, then return to normal temp. for 24hrs ±2hrs	Non-evident damage and meet table-1, the mark is clear
3. Temperature cycling	
Subject the resonator to -55˚C for 30 minutes followed by a high temperature of +85˚C for 30 minutes, 5 cycles. Return to normal temperature for 24hrs ±2hrs prior to the measurement	Non-evident damage and meet table-1, the mark is clear
4. Vibration	
Vibration: frequency: 10 to 55Hz, amplitude: 1.5mm, keep for 6 hrs	Non-evident damage and meet table-1, the mark is clear
5. Shock	
Va: 294 m/s2, pulse time: 18ms	Non-evident damage and meet table-1, the mark is clear
6. Low Air Pressure	
Air pressure: 8.5kPa keep for 2hrs	Non-breakthrough or arc and meet table-1, non-evident damage the mark is clear
7. Damp /Heat (steady state)	
Temperature: 40˚C ±2˚C, humidity: 90 to 95%. Keep for 500hrs, return to normal temperature for 24hrs ±2hrs	Non-evident damage and meet table-1, the mark is clear
8. Life test	
Temperature: +85˚C, keep for 1000hrs, return to normal temperature for 24hrs ±2hrs	Meet Table-1

MECHANICAL DIMENSIONS (all in mm)





TEST CIRCUIT



X= Ceramic Resonator
VDD= +5V
IC=1/6TC4069UBEx2
R= 1M Ohms
C1, C2= 30pF

TABLE 1

No.	Test item	The value can be changed
1	Oscillate frequency max.	±0.3%
2	Resonant impedance	±5 Ω Maximum
3	Insulate resistance	100 MΩ minimum

PART NUMBERING SYSTEM (Example)

ZTAMT-8.000-0.5-0.3-S-XX

- Hold Type
  ZTA MT / ZTA MG / ZTA MX
- Nominal Frequency (MHz)
  Enter the nominal frequency (3 digits after dot) or up to last significant digit different than zero)
- Frequency Tolerance (%)
  0.5= 0.5%
- Frequency Stability (%)
  0.3= 0.3%
- Operating Temperature Range (˚C)*
  S= Standard
- Options
  S= Standard
  X= Additional Specifications

* Operating Temperature Range: -20 to 80ºC (Standard)
* Specific Operating Temperature Range under request.

RELM - SHOULDER Brasil

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