

FEATURES

- Low cost
- Ex-stock Available
- 3 pins
- Lead Free available
- Available package in Tape/Reel & AMNO-pack

APPLICATIONS

- Microprocessor Systems
- Data Communications
- Consumer Electronics
- Automotive Electronics

SPECIFICATION *

Parameters	Product	Option Code
	ZTT	CRT
Frequency Range:	2.0000~50.0MHz	△
Frequency Accuracy at 25°C:	±0.5%	▲
Temp. Stability at -20°C~80°C:	±0.3%	▲
Load Capacitance C1,C2:		
MG& MT: 30pF±20%	▲	
MX: 30pF (12.10~19.99MHz)	▲	
15pF (20.00~25.99MHz)	▲	
5pF (26.00~50.00MHz)	▲	
Operating Temp. Range:	-20°C~+80°C	▲
Storage Temp. Range:	-40°C~+85°C	▲
Equivalent Series Resistance (ESR):		
80 Ω Max. (2.000~2.99MHz)	▲	
50 Ω Max. (3.000~3.49MHz)	▲	
30 Ω Max. (3.500~8.00MHz)	▲	
25 Ω Max. (8.010~12.0MHz)	▲	
30 Ω Max. (12.01~50.0MHz)	▲	
Supply Voltage V _{DD} :	MT & MX: +5V MG: +12V	▲
Withstanding Voltage(5Sec Max.):	100V DC	▲
Insulation Resistance(Ω):	5X10 ⁸ Ω(+10V DC)	▲
Aging Over 10 years:	±0.3ppm	▲
Design Mode:	See Table 1	△
Applicable IC:		
MT & MG: 1/6CD4069UBE	△	
MX: 1/6TC74HCU04	△	
Package	AMNO-Pack	△
	Bulk	△
	Tape/Reel	△
Other Values:	Lead Free	△

▲ Standard * Specifications Subject to Change Without Notice
 △ Optional: please specify required code when inquiring or ordering

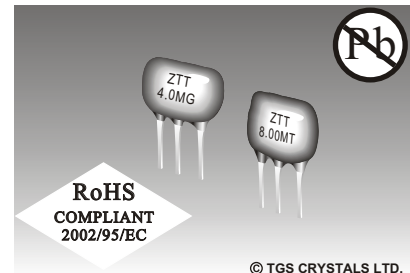
PACKAGE

- Standard package in bulk: 500pcs/bag, 10 bags/inner box, 10 box/carton
- Available on T/R & AMNO-Pack - 2000pcs per reel. See page 122 for detail dimensions

PART NUMBER GUIDE

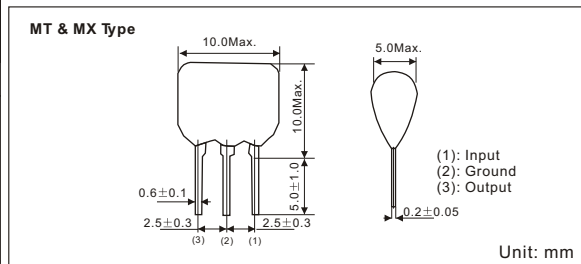
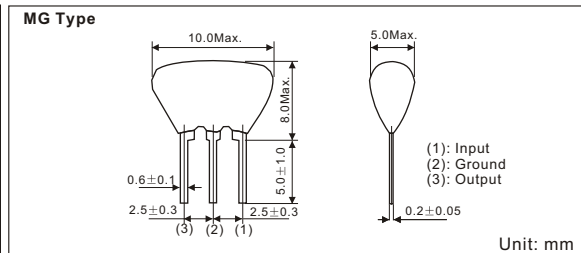
TGS	CR	T	3.58M	G	B
Mark	Ceramic Resonator	With built-in capacitance	Freq. Range	Design Mode	Package

e.g. Full P/N.: TGS CRT 3.58M MG B

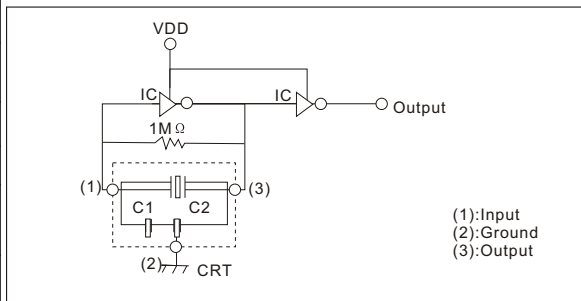


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DIMENSIONS



TEST CIRCUIT FOR MT ,MT& MX TYPES



STANDARD FREQUENCIES

Frequency in MHz

2.000000	3.680000	8.000000	16.00000
2.040000	4.000000	8.380000	16.93000
2.500000	4.190000	10.00000	
3.580000	5.380000	12.00000	
3.640000	6.000000	14.73000	

Table 1

Design Mode	Freq. Range	Option Code
Thickness Shear Mode	1.860 ~ 6.00MHz	G
Thickness Expander Mode	6.010 ~ 13.0MHz	T
Thickness Expander Mode (3rd Overtone)	13.01 ~ 50.0Mhz	X