

## FEATURES

- Plastic SMD type ● Lead Free available
- Heat-resisting package, Reflow soldering
- Emboss Taping package
- Cross reference CM309S Citizen and MC-406 Epson

## APPLICATIONS

- Communication Equipment ● AVEquipment
- OA Equipment ● Measuring instruments.

## SPECIFICATION \*

Parameters	Product	Option Code
	CCME	CCME
Frequency Range: 3.579545~27.0MHz	△	Specify
Oscillation Mode: AT Fund.	△	A
Frequency Tolerance: ±30ppm ±50ppm Other Values	△	30
	▲	50
	△	Specify
Load Capacitance: 16 pF Other Values	▲	16
	△	Specify
Frequency stability vs -10°C~+60°C : ±30ppm ±50ppm Other Values	△	30
	▲	50
	△	Specify
Operating Temp. Range: -40°C~+85°C	▲	40
Storage Temp. Range: -55°C~+125°C	▲	
Equivalent Series Resistance (ESR): 200 ohm Max.: 3.500~ 3.9990 Mhz 150 ohm Max.: 4.000~ 5.9990 MHz 100 ohm Max.: 6.000~ 9.999 MHz 50 ohm Max.: 10.00~ 27.000 Mhz Other Values	△	200
	△	150
	△	100
	△	50
	△	Specify
Drive Level: 100 uW Max.	▲	
Shunt Capacitance : 7.0pF typ.	▲	
Shock Resistance : ± 5ppm Max	▲	
Soldering Conditions: 240°C ± 5°C/10sec.	▲	
Insulation Resistance : 500MΩ DC100V	▲	
Aging: ±5ppm Max.	▲	
Package: Tape/Reel	△	T
Other Values: Lead Free	△	LF

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

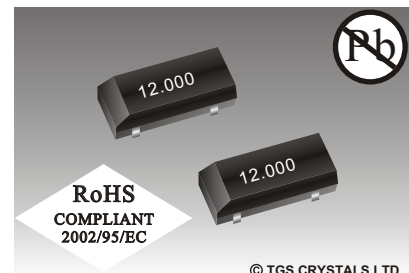
## PACKAGE

- Standard package in T/R: 3000pcs/Reel, 2Reel/box, 5box/carton  
See page 120 for detail dimensions

## PARTNUMBER GUIDE

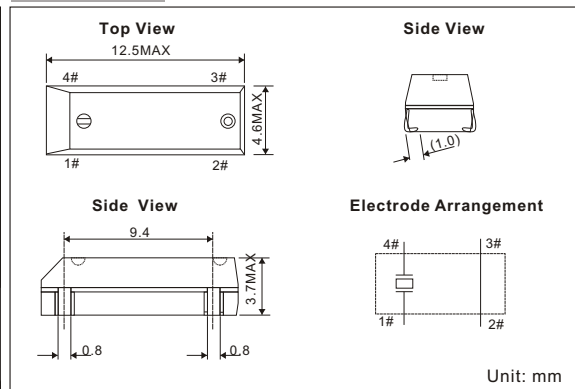
TGS	CC	M	E	12M0	A	50	- 16	- 50	-40	-50	-T
Mark	Cylindrical Crystals	SMD Type	12.5x4.6x3.7mm	Freq. Range	Oscillator Mode	Freq. Tolerance	Load Capacitance	Freq. Stability	Operating Temp. Range	ESR	Package

e.g. Full P/N.: TGS CCME 12M0A50-16-50-40-50 T  
Short P/N.: CCME 12M0A16T (Others is standard Spec.)

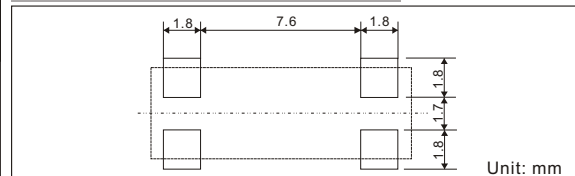


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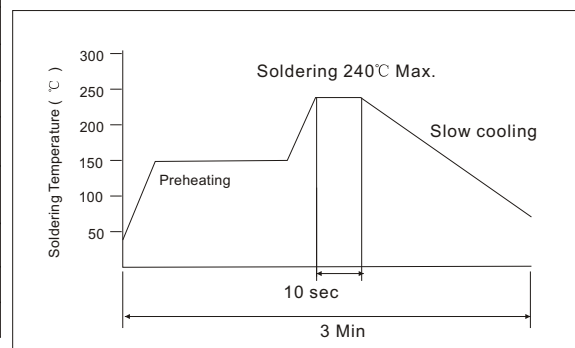
## DIMENSIONS



## RECOMMENDED SOLDER PAD LAYOUT



## SOLDER REFLOW PROFILE



## AT-CUT CRYSTAL UNITS

