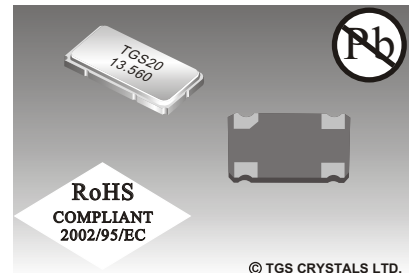


FEATURES

- Ultra Low Height
- Tight Tolerance and Stability
- 4 pads
- Tape & Reel
- Dimension 6.0x3.5x1.2mm
- Seam Weld Sealing
- Lead Free available

APPLICATIONS

- PCMCIA Applications
- Data Communications
- Telecommunications
- Automotive Electronics



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SPECIFICATION *

Parameters	Product	Option Code
	SMD0603	CM63
Frequency Range: 8.000~70.0MHz	△	Specify
Oscillation Mode: AT Fund. (8~20MHz) BT Fund. (12~40MHz) 3rd OT (40~70MHz)	△	A
	△	B
	△	C
Frequency Tolerance:	△	10
	△	20
	△	30
	▲	50
	△	Specify
Load Capacitance:	△	12
	△	16
	△	18
	▲	20
	△	30
	△	S
	△	Specify
Frequency Stability:	△	10
	△	20
	△	30
	▲	50
	△	Specify
Operating Temp. Range:	△	0
	▲	10
	△	20
	△	40
	△	Specify
Storage Temp. Range: -40℃~+85℃	▲	
Equivalent Series Resistance (ESR): See Table 1	△	Specify
Drive Level: 100 uW Max.	▲	
Shunt Capacitance (C ₀): 7.0 pF Max.	▲	
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

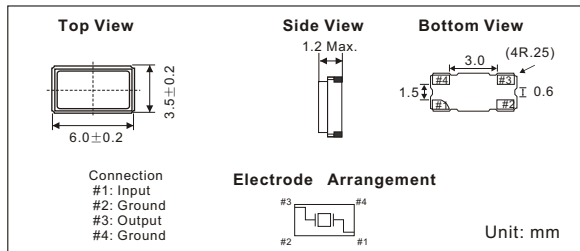
- Standard package in T/R: 1000pcs/Reel, 2Reel/ box, 5 box/carton
- See page 117 for detail dimensions

PARTNUMBER GUIDE

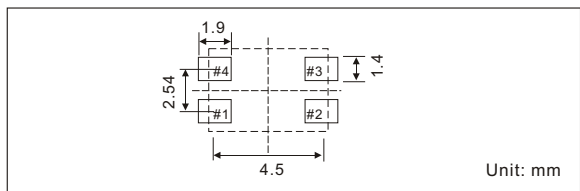
TGS	C	M	63	15M360	A	50	- 20	- 50	- 10	- 40	- T
Mark	Quartz Crystals	SMD Type	6.0X3.5X1.2mm	Freq. Range	Oscillation Mode	Freq. Tolerance	Load Capacitance	Freq. Stability	Operating Temp. Range	ESR	Package

e.g. Full P/N.: TGS CM63 15M36A50-20-50-10-40T
Short P/N.: CM63 15M36A20T (Others is standard Spec.)

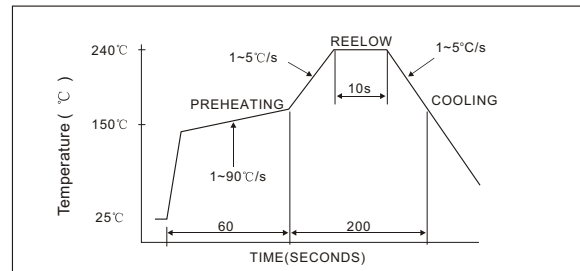
DIMENSIONS



RECOMMENDED SOLDER PAD LAYOUT



SOLDER REFLOW PROFILE



ESR VALUES

Table 1

Frequency Range (MHz)	ESR Max (ohm)	Frequency Range (MHz)	ESR Max (ohm)
8.0000 ~ 9.8000	80	13.000 ~ 19.999	40
9.8300 ~ 9.9990	60	20.000 ~ 23.999	40
10.000 ~ 12.999	50	24.0000 ~ 70.0000	100

