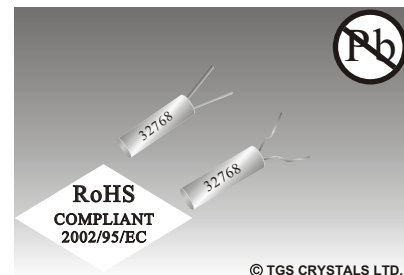


FEATURES

- Wide Frequency Range
- Small Size
- Cross reference CM205TCitizen

APPLICATIONS

- Microprocessor Systems
- Communications



© TGS CRYSTALS LTD.

SPECIFICATION *

Parameters	Product	Option Code
	CCMB	CCMB
Frequency Range: 30.000~153.6KHz	△	Specify
Oscillation Mode: AT Fund.	△	A
Frequency Tolerance: ± 10ppm ± 20ppm ± 30ppm ± 50ppm Other Values	△	10
	△	20
	△	30
	▲	50
	△	Specify
Load Capacitance: 6pF 12.5pF Other Values	△	6
	▲	12.5
	△	Specify
Frequency/Temp Coefficient: -0.034±0.006ppm/°C² typ	▲	
Operating Temp. Range: -10°C~+60°C -40°C~+85°C Other Values	▲	10
	△	40
	△	Specify
Storage Temp. Range: -40°C~+85°C	▲	
Turnover Temp. (To): 25°C±5°C	▲	
Equivalent Series Resistance (ESR): See Table 1	△	Specify
Drive Level: 1.0 uW Max.	▲	
Shunt Capacitance (C0): 1.35pF Typ.	▲	
Dynamic Capacitance(C1): 2.4fF Typ	▲	
Soldering Conditions: 240°C, 10sec Max	▲	
Quality Factor (Q): 100000typ	▲	
Aging: ±5ppm Max.	▲	
Package: Tape/Reel	△	T

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

PACKAGE

- Standard package in T/R:3000pcs per reel.
- See page 120 for detail dimensions

ESR VALUES

Table 1

Frequency Range (KHz)	ESR Max (K ohm)	Frequency Range (KHz)	ESR Max (K ohm)
30.0000~39.9990	50	70.0000~99.9990	35
40.0000~59.9990	40	100.000~153.600	30
60.0000~69.9990	35		

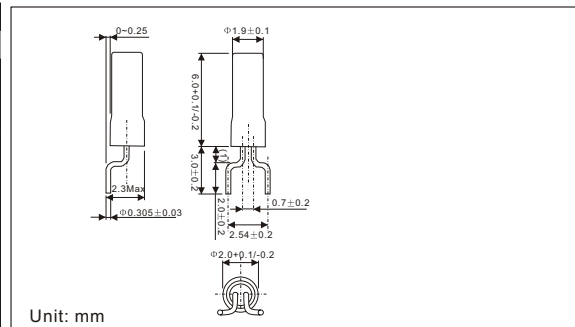
PARTNUMBER GUIDE

TGS	CC	M	B	32K768	A	30	- 12.5	-40	-50	- T
Mark	Cylindrical Crystals	SMD Type	B: Type B	Freq. Range	Oscillation Mode	Freq. Tolerance	Load Capacitance	Operating Temp. Range	ESR	Package

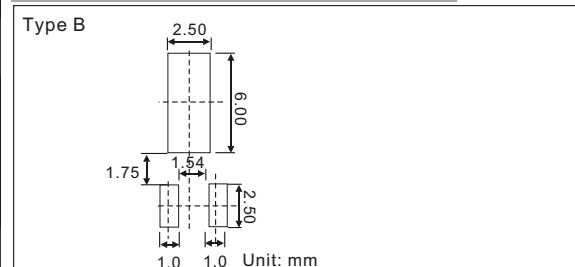
e.g. Full P/N.: TGS CCMB 32K768A50-12.5-40-40 T

Short P/N.: CCMB 32K768A12.5 T (Others is standard Spec.)

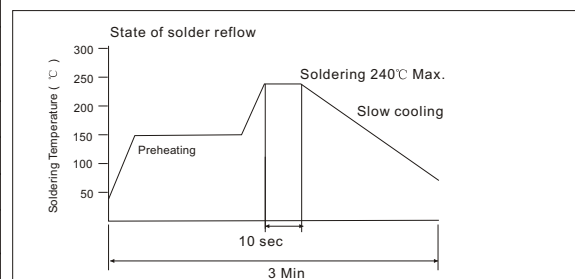
DIMENSIONS



RECOMMENDED SOLDER PAD LAYOUT



SOLDER REFLOW PROFILE



FREQUENCY VS TEMP. CURVE

