



TCXO HIGH STABILITY
105 °C HIGH TEMPERATURE



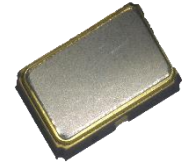
Product Number
TG5032CKN: X1G006021xxxx14
TG5032SKN: X1G006031xxxx14
TG5032CMN: X1G006041xxxx14
TG5032SMN: X1G006051xxxx14

TG5032CKN / TG5032SKN TG5032CMN / TG5032SMN

- Frequency range : 10 MHz to 54 MHz
- Supply voltage : 3.3 V Typ.
- Frequency / temperature characteristics : $\pm 0.1 \times 10^{-6}$ Max. (-40 °C to +105 °C)
- Holdover stability : $\pm 4.6 \times 10^{-6}$ Max. / 20 years (for Stratum3)
- External dimensions : 5.0 × 3.2 × 1.45 mm (10 pins or 4 pins)
- Applications : Network synchronization, Stratum3, BTS, SyncE, IEEE1588, Microwave
- Features : 105 °C High temp, High stability



TG5032CKN
TG5032SKN
(10 pins)



TG5032CMN
TG5032SMN
(4 pins)

Specifications (characteristics)

Item	Symbol	CMOS	Clipped sine wave	Condition
Output frequency range	f _o	10 MHz to 54 MHz		Please contact us about available frequencies.
Supply voltage	V _{CC}	3.3 V ± 5 %		
Storage temperature	T _{stg}	-40 °C to +105 °C		Storage as single product.
Operating temperature	T _{use}	-40 °C to +105 °C		
a) Frequency tolerance	f _{tol}	±1.0 × 10 ⁻⁶ Max.		After reflow, +25 °C
b) Frequency/temperature characteristics	f _o -Tc	±0.1 × 10 ⁻⁶ Max.		-40 °C to +105 °C
c) Frequency/load coefficient	f _o -Load	±0.1 × 10 ⁻⁶ Max.		Load ± 10 %
d) Frequency/voltage coefficient	f _o -V _{CC}	±0.1 × 10 ⁻⁶ Max.		V _{CC} ± 5 %
e) Frequency aging	f _{age}	±0.5 × 10 ⁻⁶ Max. ±3.0 × 10 ⁻⁶ Max.		+25 °C, First year +25 °C, 20 years
Wander generation (MTIE, TDEV)		Compliant with GR-1244CORE, ITU-T G.8262.1, G.8273.2		
Holdover stability (Free-run accuracy)	f _{hos}	±4.6 × 10 ⁻⁶ Max. / 20 years		This includes Item a), b), c), d) and e)
Current consumption	I _{CC}	7.0 mA Max.	6.0 mA Max.	10 MHz ≤ f _o ≤ 26 MHz
		9.0 mA Max.		26 MHz < f _o ≤ 40 MHz
		10.0 mA Max.		40 MHz < f _o ≤ 54 MHz
Symmetry	SYM	45 % to 55 %	-	GND level (DC cut)
Output voltage	V _{OH} V _{OL} V _{pp}	90 % V _{CC} Min.	-	
		10 % V _{CC} Max.	-	
		-	0.8 V Min.	Peak to Peak
Rise time / Fall time	tr/tf	8.0 ns Max.	-	10 % V _{CC} to 90 % V _{CC} level, Load: 15 pF
Start-up time	t _{str}	5 ms. Max.		t = 0 at 90 % V _{CC}
Output load condition	Load	15 pF	10 kΩ // 10 pF	
Input voltage	V _{IH}	70 % V _{CC} Min.		OE terminal (Enable voltage)
	V _{IL}	30 % V _{CC} Max.		OE terminal (Disable voltage)

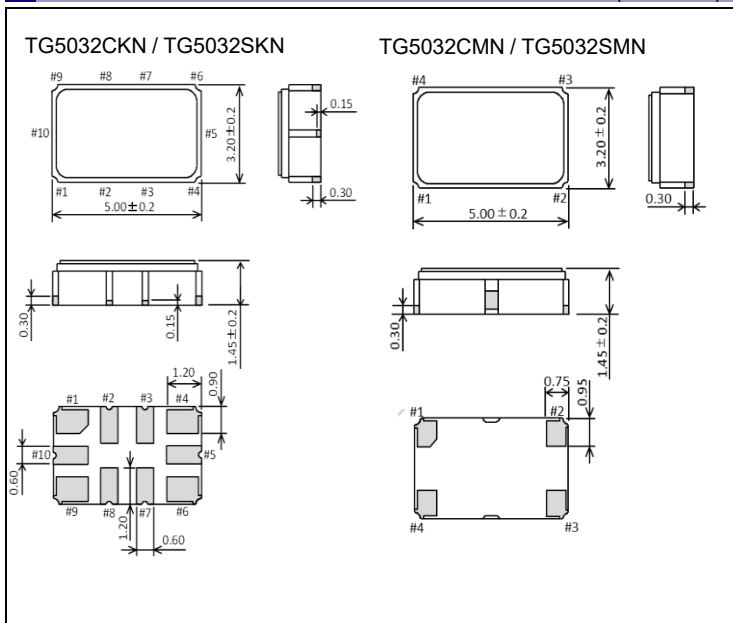
* Note : Please contact us for requirements not listed in this specification.

Product Name TG5032CKN38.88000MHzCAHHGA
(Standard form) ① ②③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

- ①Model ②Output (C: CMOS, S: Clipped sine wave) ③Package type (K: 10 pins, M: 4 pins) ④Frequency ⑤Supply voltage (C: 3.3 V Typ.)
⑥Frequency / temperature characteristics (A: $\pm 0.1 \times 10^{-6}$ Max.) ⑦Operating temperature (H: -40 °C to +105 °C)
⑧OE function (H: Active High (TG5032CKN/TG5032SKN), N: Non (TG5032CMN/TG5032SMN))
⑨Filter function (G: Filter-ON, N: NO-Filter) ⑩Internal identification code ("A" is default)

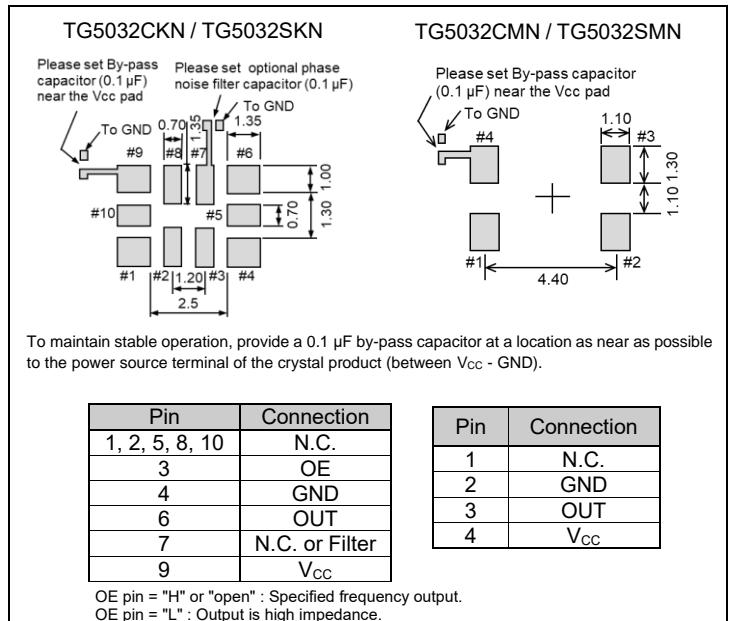
External dimensions

(Unit : mm)



Footprint (Recommended) / Pin Map

(Unit : mm)



► Explanation of the mark that are using it for the catalog

	<p>► Pb free.</p>
	<p>► Complies with EU RoHS directive. *About the products without the Pb-free mark. Contains Pb in products exempted by EU RoHS directive. (Contains Pb in sealing glass, high melting temperature type solder or other.)</p>
	<p>► Designed for automotive general equipment.</p>
	<p>► Designed for automotive applications related to driving and safety.</p>

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