

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Specification of Temperature Compensated Crystal Oscillators

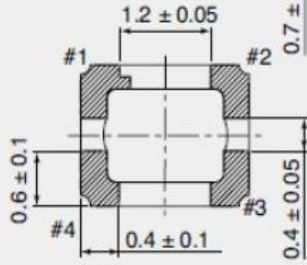
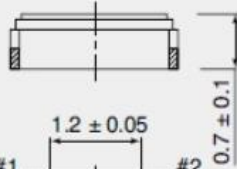
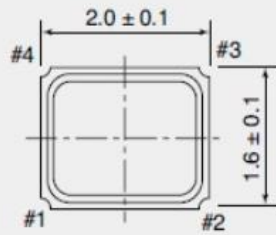
- 1. NDK Part Number** NT2016SA-32M-END4263A
2. NDK Specification Number END4263A
3. Type NT2016SA
4. Absolute Maximum ratings

	Item	Ratings			Notes
		Min.	Max.	Units	
1	Supply Voltage	-0.6	+4.6	V	-
2	Storage temp. range	-40	+85	°C	-

5. Electrical Specification

	Parameters	SYM.	Electrical Spec.				Notes
			Min.	Typ.	Max.	Units	
1	Nominal frequency	f _{nom}	32			MHz	-
2	Supply voltage	V _{cc}	+1.8	+3.0	+3.0	V	-
3	Current consumption	-	-	-	2	mA	-
4	Output voltage	-	0.8	-	-	V _{p-p}	Clipped sine wave (DC-Coupling)
5	Operating temp. rage	-	-30	-	+85	°C	-
6	Load impedance (resistance part)	-	9	10	11	kΩ	-
7	Load impedance (parallel capacitance)	-	9	10	11	pF	-
8	DC-cut capacitor	-	-	-	-	-	DC-cut capacitor of output is not put in TCXO.Please add DC-cut capacitor(1,000pF)in output line.
9	Frequency/ temperature characteristics	-	-2.5	-	+2.5	ppm	-30 to +85°C(Based on frequency at +25+/- 2°C)
10	Frequency/ Voltage coefficient	-	-0.1	-	+0.1	ppm	+3.0V+/-5%
11	Frequency/ Load coefficient	-	-0.1	-	+0.1	ppm	(10kΩ//10pF)+/-10%
12	Frequency tolerance	-	-1.0	-	+1.0	ppm	at +/-25°C+/-2°C,Before reflow soldering, based on nominal frequency
13	Long-term frequency stability	-	-1.0	-	+1.0	ppm	year(at +25°C+/-2°C)
14	Phase noise	-	-	-86		dBc/Hz	@10 Hz offset
		-	-	-114		dBc/Hz	@100 Hz offset
		-	-	-137		dBc/Hz	@1 kHz offset
		-	-	-149		dBc/Hz	@10 kHz offset
		-	-	-150		dBc/Hz	@100 kHz offset
							at +25°C+/-2°C
15	G Sensitivity	-	-	-	2	ppb/G	(30 Hz to 1500 Hz random vibration in each of 3-axis)

6. Dimension



Terminal land connections

#1	NC or GND (ground recommended)
#2	GND
#3	OUTPUT
#4	V _{CC}

Land pattern (Typical)

