

Model name

2765E Overall frequency tolerance of $\pm 100 \times 10^{-6}$.

Application

- For compact mobile information equipment, such as PDA and notebook PC

Features

- With a spread spectrum function installed, this crystal oscillator effectively reduces EMI noise.
- Down-spreading and center-spreading.
- With a standby function installed, power consumption is reduced.

Pb Free

RoHS Compliant
Directive 2011/65/EU



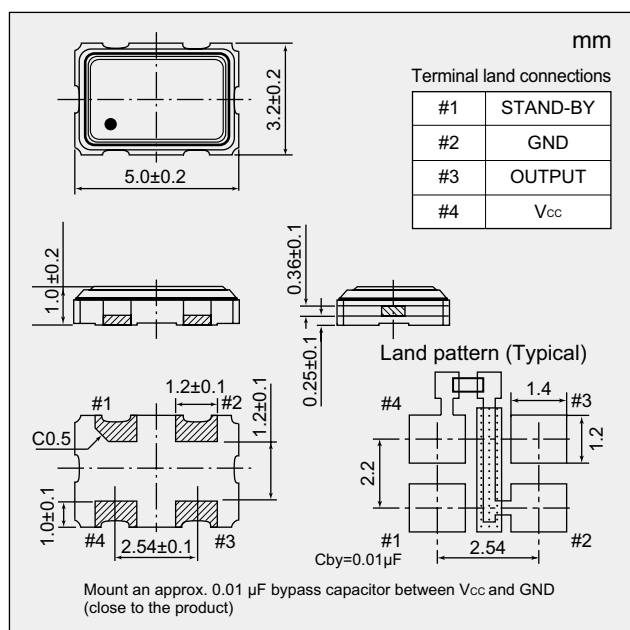
Absolute maximum rating
Supply voltage (V_{CC}) -0.5 to +7.0 V
Storage temperature range -55 to +125 °C

Specifications

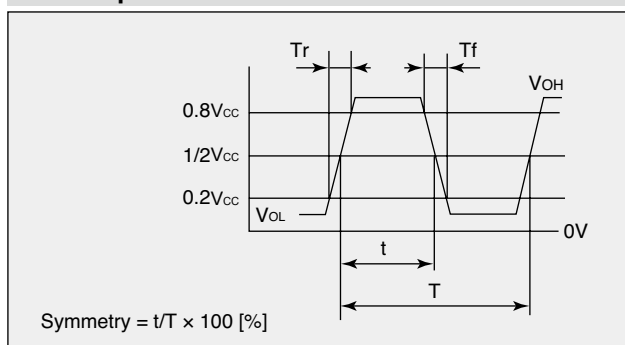
Item		Model	2765E
Output level			CMOS
Nominal frequency range *1	(MHz)		$20 \leq F \leq 80$
Operating temperature range *2	(°C)		-20 to +70
Overall frequency tolerance	($\times 10^{-6}$)		± 100
Supply voltage [V_{CC}]	(V)		$+3.3 \pm 0.3$
Current consumption (+3.3 V, 25 °C) max	During operation	(mA)	30
	During standby	(μ A)	30
V_{OL} max/ V_{OH} min	(V)		$0.2 V_{CC}/0.8 V_{CC}$
T_r max/ T_f max	(ns)		5/5 ($0.2 V_{CC}$ to $0.8 V_{CC}$)
Symmetry min. to max.	(%)		40 to 60 (at $1/2 V_{CC}$)
Load (C_L) max	(pF)		15
Start-up time max	(ms)		10
Standby function			Available (Three-state)
Number for specifying an order			NSA3393A

*1: If you require a product with a frequency not given above, please contact us. *2: If you require a product with an operating temperature range not given above, please contact us.

Dimensions



Output Waveform <CMOS>



Spread Spectrum Characteristics

Spreading Type	Spreading Ratio
Center spreading	± 1.0 %

Standby Function

#1 Input	#3 Output
Level H ($0.7 V_{CC} \leq V_{IH} \leq V_{CC}$) or OPEN is selected.	Oscillation output ON
Level L ($V_{IL} \leq 0.3 V_{CC}$) is selected.	High impedance

How to Specify an Order

When ordering our products, specify them with an "Ordering Code" that consists of the following: Example : When ordering a product with model name: 2765E, frequency: 20 MHz, overall frequency tolerance: $\pm 100 \times 10^{-6}$, and supply voltage: 3.3 V
Ordering Code: 2765E - 20.000000M - NSA3393A

If you have any queries concerning our standard frequencies and numbers for specifying orders, please contact our sales representatives or visit our homepage (<http://www.ndk.com/>).