



5x7,5mm SMT CRYSTAL-OSCILLATORS NMSOL / NMSOH / NMSOT 5,0V

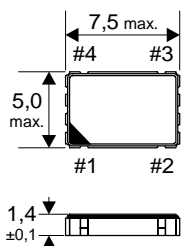


FREQUENZSTABILITÄT FREQUENCY STABILITY		BETRIEBSBEDINGUNGEN OPERATING CONDITIONS	
Modell Model			
NM1SOL/-SOH/-SOT	±100ppm/-10~+70°C	Betriebstemperatur operating temp.	-10~+70°C, -40~+85°C
NM2SOL/-SOH/-SOT	±50ppm/-10~+70°C	Lagertemperatur storage temperature	-55~+125°C
NM3SOL/-SOH/-SOT	±25ppm/-10~+70°C	Betriebsspannung V _{DD} supply voltage	+5,0V ±0,5V
NM1SOLR/-SOHR/-SOTR	±100ppm/-40~+85°C	Feuchteempfindlichkeit MSL	1
NM2SOLR/-SOHR/-SOTR	±50ppm/-40~+85°C		
NM3SOLR/-SOHR/-SOTR	±25ppm/-40~+85°C		

Elektrische Daten electrical characteristics					
T _a = +25°C, V _{DD} = 5,0 V, C _L = 15 pF f. NMSOL, C _L = 50 pF f. NMSOH, R _L = 400 Ω f. NMSOT					
Parameter parameter	Bedingungen conditions	Frequenzbereich frequ. range (MHz)	NMSOL	NMSOH	NMSOT
max. Stromaufnahme max. input current	I _{DD}	1,800 ~ 32,000 32,000 ⁺ ~ 50,000 50,000 ⁺ ~ 80,000	25 mA 35 mA -	27 mA 45 mA 75 mA	22 mA 26 mA -
Frequenzstabilität frequency stability	über alles *) all conditions *)	1,800 ~ 80,000	±25 ppm ~ ±100 ppm		
Tastverhältnis symmetry	@50% V _{DD} @1,4 V	1,800 ~ 80,000	45/55 % -	-	45/55 %
Ausgangsspannung output voltage	V _{OL} V _{OH}	"0" level "1" level	0,5 V max. 4,5 V min.		0,4V max. 2,4V min.
Anstiegszeit max. rise time max.	T _R	0,5 - 4,5 V 0,4 - 2,4 V	10 ns -	7 ns -	- 5 ns
Abfallzeit max. fall time max.	T _F	4,5 - 0,5 V 2,4 - 0,4 V	10 ns -	7 ns -	- 5 ns
Ausgangsstrom min. output current min.	I _{OL} I _{OH}	"0" level "1" level	4 mA 4 mA	16 mA 16 mA	16 mA 4 mA
standby current max.	V _{IL} ≤ 30% V _{DD}	1,800 ~ 80,000	-		
max. Belastbarkeit max. driving ability	TTL HCMOS	1,800 ~ 80,000 1,800 ~ 80,000	10 LS-TTL 15 pF	10 N-TTL 50 pF	10 N-TTL -
Startzeit max. start-up time max.	0,0 ~ 5,0 V	1,800 ~ 32,000 32,000 ⁺ ~ 80,000	5 ms max. 10 ms max.		

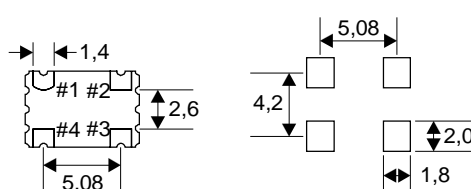
*) Anmerkung: inkl. Abgleichtoleranz, Temperaturgang, Spannungs- und Laständerung, Alterung, Schock und Vibration
note: incl. frequency and temperature tolerance, supply voltage and load change, aging, shock and vibration

Abmessungen in mm
dimensions in mm



lead-free/RoHS-conformal

empfohlenes Layout
recommended solder pad layout



Anschlußbelegung
pin connections

#1	E/D
#2	GND
#3	OUT
#4	V _{DD}

Funktionstabelle (f. NMSOL3)
enable /disable function

INH (pin #1)	output (pin #3)
open	active
"1" (V _{IH} ≥ 70% V _{DD})	active
"0" (V _{IL} ≤ 30% V _{DD})	high Z