



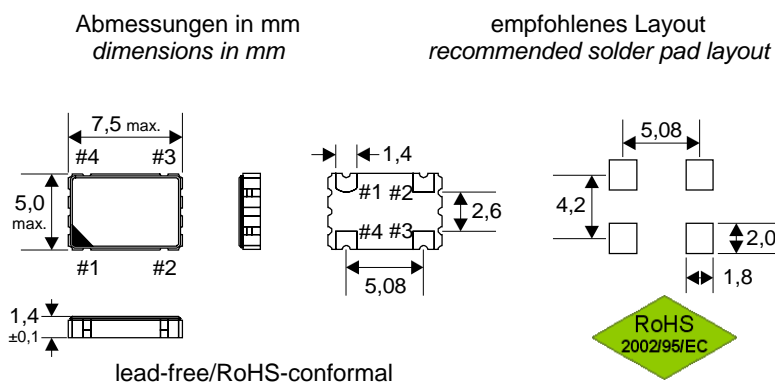
## 5x7,5mm SMT CRYSTAL-OSCILLATORS NMSOJ3 3,3V 30pF



FREQUENZSTABILITÄT FREQUENCY STABILITY		BETRIEBSBEDINGUNGEN OPERATING CONDITIONS	
Modell <i>Model</i>		Betriebstemperatur <i>operating temp.</i>	-10~+70°C, -40~+85°C
NM1SOJ3	±100ppm/-10~+70°C	Lagertemperatur <i>storage temperature</i>	-55~+125°C
NM2SOJ3	±50ppm/-10~+70°C	Betriebsspannung $V_{DD}$	+3,3V ±0,3V
NM3SOJ3	±25ppm/-10~+70°C	<i>supply voltage</i>	
NM4SOJ3	±20ppm/-10~+70°C	Feuchteempfindlichkeit <i>MSL</i>	1
NM1SOJ3R	±100ppm/-40~+85°C		
NM2SOJ3R	±50ppm/-40~+85°C		
NM3SOJ3R	±25ppm/-40~+85°C		

Elektrische Daten <i>electrical characteristics</i>			
$T_a = 25^\circ\text{C}$ , $V_{DD} = 3,3\text{ V}$ , $C_L = 15\text{ pF}$			
Parameter <i>parameter</i>	Bedingungen <i>conditions</i>	Frequenzbereich <i>frequ. range</i>	Spezifikationen <i>specifications</i>
max. Stromaufnahme <i>max. input current</i>	$I_{DD}$	1,8000 <sup>+</sup> ~ 80,000 MHz	38 mA
Frequenzstabilität <i>frequency stability</i>	über alles *) all conditions *)	1,8000 <sup>+</sup> ~ 80,000 MHz	±20 ppm ~ ±100 ppm
Tastverhältnis <i>symmetry</i>	@50% $V_{DD}$	1,8000 <sup>+</sup> ~ 80,000 MHz	45/55 %
Ausgangsspannung <i>output voltage</i>	$V_{OL}$ $V_{OH}$	"0" level "1" level	10% $V_{DD}$ max. 90% $V_{DD}$ min.
Anstiegszeit max. <i>rise time max.</i>	$T_R$	10% - 90% $V_{DD}$	6 ns
Abfallzeit max. <i>fall time max.</i>	$T_F$	90% - 10% $V_{DD}$	6 ns
Ausgangsstrom min. <i>output current min.</i>	$I_{OL}$ $I_{OH}$	"0" level "1" level	2 mA
Ruhestrom max. <i>standby current max.</i>	$V_{IL} \leq 30\% V_{DD}$	1,8000 <sup>+</sup> ~ 80,000 MHz	10 $\mu\text{A}$
max. Belastbarkeit <i>max. driving ability</i>	TTL	1,8000 <sup>+</sup> ~ 80,000 MHz	5 N-TTL
	HCMOS	1,8000 <sup>+</sup> ~ 80,000 MHz	30 pF
Startzeit max. <i>start-up time max.</i>	0,0 - 3,3 V	1,8000 <sup>+</sup> ~ 80,000 MHz	10 ms

\*) 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



Anschlußbelegung <i>pin connections</i>	
#1	E/D
#2	GND
#3	OUT
#4	$V_{DD}$

Funktionstabelle (f. NMSOL3) <i>enable /disable function</i>	
INH (pin #1)	output (pin #3)
open	active
"1" ( $V_{IH} \geq 70\% V_{DD}$ )	active
"0" ( $V_{IL} \leq 30\% V_{DD}$ )	high Z