

### VOLTAGE CONTROLLED CRYSTAL OSCILLATOR UNIT WITH LVDS OUTPUT IN CERAMIC SEAM SEAL SMD PACKAGE, SIZE 7.0 x 5.0MM WITH 6 PADS.

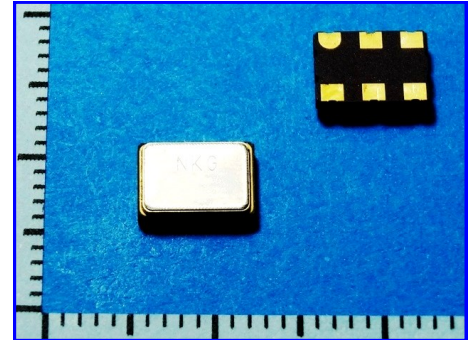
## SVCD7 / SVHD7

#### PRODUCT FEATURES

- VCXO IN SMD PACKAGE SIZE 7.0 x 5.0 x 1.8MM WITH 6 PADS.
- WIDE FREQUENCY RANGE 10 TO 640MHZ.
- LOW JITTER AND PHASE NOISE DESIGNS.
- HIGHLY RELIABLE SEAM SEAL PACKAGE PROVIDING LOW AGING RATE.

#### APPLICATIONS

- HIGH SPEED NETWORKING
- WIRELESS REPEATERS
- FIBER CHANNEL, TRANSPONDERS
- AUDIO & VIDEO EQUIPMENT



#### PRODUCT SPECIFICATIONS

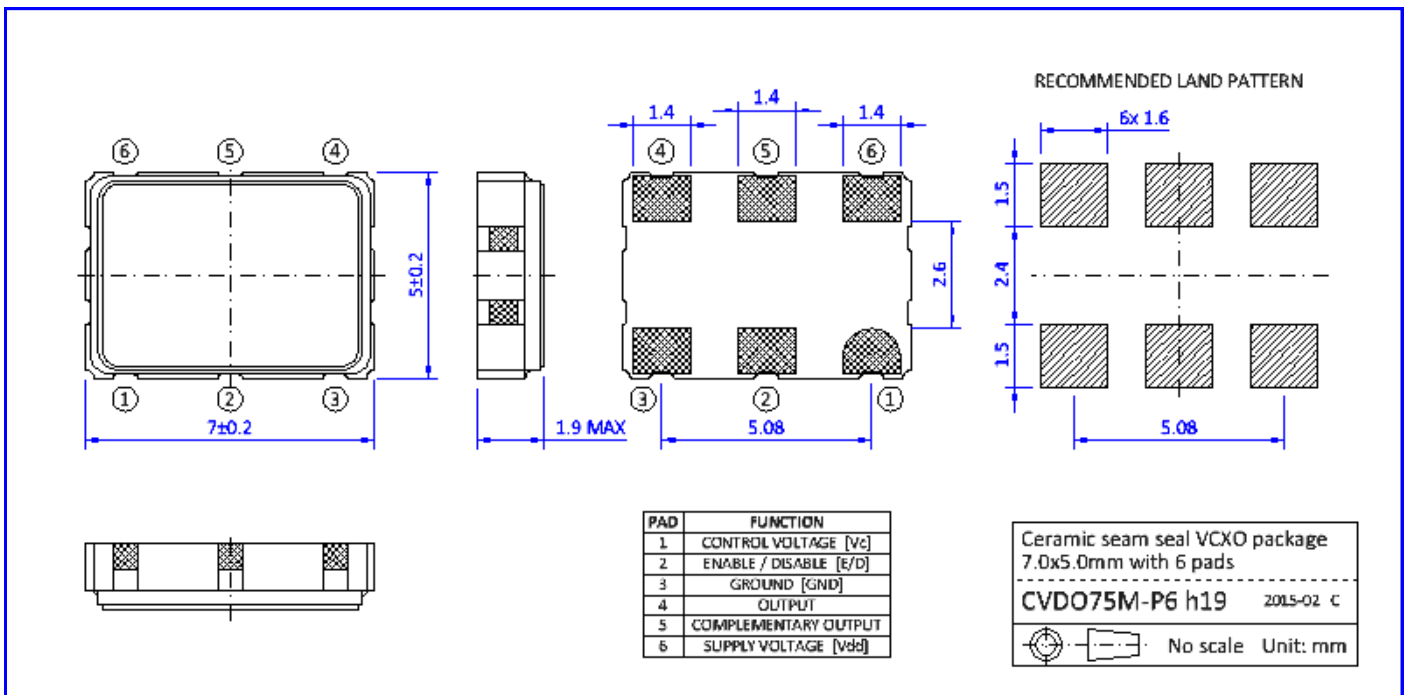
PARAMETER	SYMBOL	SVCD7 PARAMETER VALUES	SVHD7 PARAMETER VALUES
OSCILLATOR MODE	—	FUNDAMENTAL OR OVERTONE CIRCUIT	MULTIPLIER CIRCUIT
NOMINAL FREQUENCY	$F_N$	<b>10 ~ 60MHz / 60 ~ 160MHz</b>	<b>50 ~ 640MHz</b>
SUPPLY VOLTAGE	$V_{DD}$	2.5V <sub>DC</sub> / 3.3V <sub>DC</sub>	3.3V <sub>DC</sub>
SUPPLY CURRENT CONSUMPTION (NOTE 1)	$I_{DD}$	<50mA	<90mA
OVERALL FREQUENCY STABILITY (NOTE 2)	$\Delta f/F_N$	±25PPM, ±50PPM, ±100PPM	
AGING FIRST YEAR	$(\Delta f/F_N)_Y1$	±3PPM	
CONTROL VOLTAGE RANGE	$V_C$	0.2 ~ 2.3V (@V <sub>DD</sub> =2.5V) / 0.3 ~ 3.0V (@V <sub>DD</sub> =3.3V)	
FREQUENCY PULLING RANGE	$\Delta f/V_C$	±50PPM UP TO ±200PPM (DEPENDING ON FREQUENCY)	
OPERATING TEMPERATURE RANGE	$T_{OP}$	-10°C ~ +70°C / -40°C ~ +85°C (TYPICALLY USED, OTHERS REQUEST)	
OUTPUT WAVEFORM / LOAD	— / Z <sub>L</sub>	LVDS / 50Ω INTO V <sub>CC</sub> -2V = 100Ω BETWEEN THE TWO OUTPUTS	
OUTPUT VOLTAGE LEVELS	$V_{OH}/V_{OL}$	1.4V TYP / 1.0 TYP (TIA/EIA-644)	
OUTPUT VOLTAGE SWING	$\Delta V_{OUT}$	250mV (TYP @2.5V <sub>DD</sub> ) / 350mV (TYP @3.3V <sub>DD</sub> )	
RISE AND FALL TIMES	$t_R$ AND $t_F$	1.5ns MAX	
OUTPUT SYMMETRY (DUTY CYCLE)	DC	50±5%	
PHASE JITTER (12KHz≤F <sub>J</sub> ≤20MHz)	$J_{RMS}$	0.4ps TYP (for 156.250MHz)	0.5ps TYP (for 156.250MHz)
PHASE NOISE (NOTE 3)	$\ell(\Delta f)$	-62 / -90 / -120 / -132 / -130dBc	-55 / -85 / -109 / -116 / -120dBc
STANDBY FUNCTION (E/D ON PIN 2)	E/D	PIN2=HIGH OR OPEN -> OUTPUTS ARE ACTIVE	PIN2=LOW -> OUTPUTS ARE HIGH IMPED.

NOTE 1: CURRENT CONSUMPTION IS TYPICAL FOR 3.3V, AT LOWER SUPPLY VOLTAGES LESS CONSUMPTION APPLIES. UNITS WITH 5.0V FOR CERTAIN FREQ. STILL AVAILABLE.

NOTE 2: OVERALL FREQUENCY STABILITY INCLUDES TOLERANCE, DEVIATIONS OVER OPERATING TEMPERATURE, DUE TO OUTPUT LOAD AND SUPPLY VOLTAGE DEVIATIONS.

NOTE 3: PHASE NOISE TYPICAL AT 10Hz / 100Hz / 1kHz / 10kHz / 100kHz FOR 156.250MHz

#### MECHANICAL DIMENSIONS

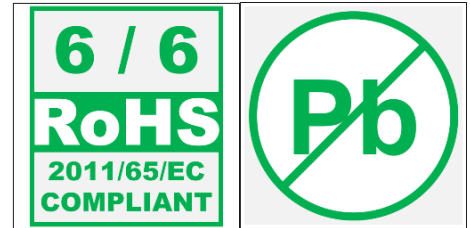


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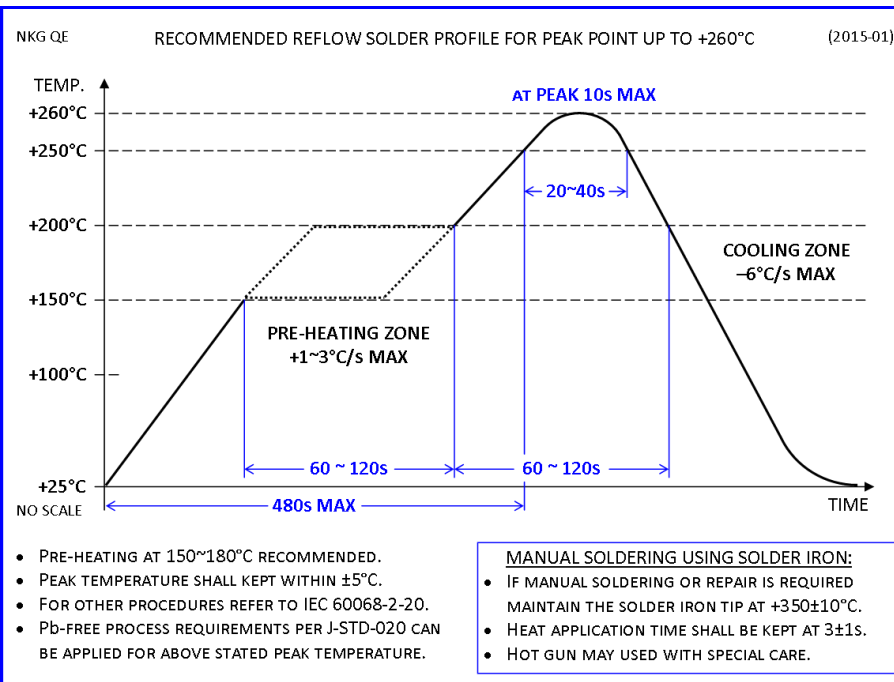
### SVCD7 / SVHD7

#### ENVIRONMENTAL COMPLIANCE INFORMATION

- ROHS 6/6 COMPLIANT (DIRECTIVE 2011/65/EC) AND LEAD-FREE.
- COMPLIANT TO ROHS 2 (DIRECTIVE 2015/863) (ALSO CALLED ROHS10).
- HALOGEN-FREE PER DEFINITION OF IEC 61249-2-21 2033.
- NONE-USE OF SVHCs PER REACH IS CURRENTLY GIVEN, CONTINUOUSLY MONITORED AND UPDATED AS THE COMMISSION ISSUES NEW RELEASES.
- PRODUCT DOES NOT CONTAIN ANY PHTHALATES (PHS).
- PRODUCT DOES NOT CONTAIN PVC (POLYVINYL CHLORIDE).
- PRODUCT DOES NOT CONTAIN PFOS/PFOA NOR BEING SAME USED TO MANUFACTURE THE COMPONENTS OF THIS PRODUCT.

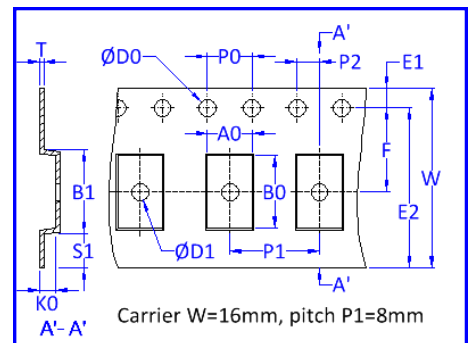


#### SOLDERING RECOMMENDATIONS



#### PACKAGING INFORMATION

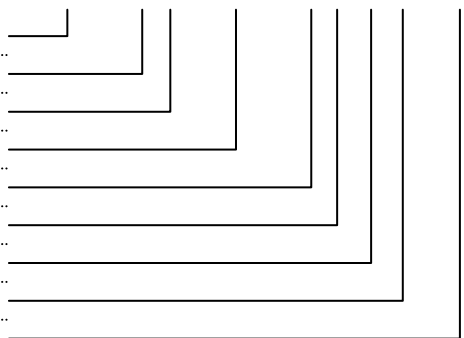
- PACKAGING IN TAPE & REEL IN COMPLIANCE TO EIA-481.
- QTY PER REEL: 1,000PCS
- REEL DIA A=180MM.
- EMBOSSED CARRIER TAPE WIDTH W = 16MM.
- COMPONENT PITCH P1 = 8MM.



#### PART NUMBER SYNTAX

- PART NUMBER FAMILY (REPRESENTS PRODUCT MODEL W/ LVDS OUTPUT AND PACKAGE SIZE)
- SUPPLY VOLTAGE DESIGNATOR (I.E. 50= 5.0V, 33= 3.3V, 25= 2.5V, 18= 1.8V)
- FREQUENCY STABILITY CODE (I.E. A= ±25PPM, B= ±50PPM, C= ±100PPM, D= ±30PPM)
- NOMINAL FREQUENCY (IN MHZ WITH AT LEAST THREE DIGITS AFTER DECIMAL POINT)
- OPERATING TEMPERATURE RANGE CODE (I.E. M= -10~70°C, W= -40~85°C)
- OUTPUT SYMMETRY INDICATOR (N= 50±10%, T= 50±5%)
- FREQUENCY PULLING RANGE (VALUE IN PPM I.E. 50= ±50PPM, 100= ±100PPM)
- FREQUENCY PULLING MODE (BLANK FOR STANDARD, A= ABSOLUTE PULLING RANGE APR)
- PART NUMBER EXTENSION (ONLY FOR NON-STANDARD OR CUSTOMIZED PARTS)

#### SVCD733B50.000MT50A-EXT



FOR MORE INFORMATION PLEASE CONTACT US.

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