

Surface Mount Oscillators

•SCO5H18, SCO5H25, SCO5H28, SCO5H33, SCO5H50
(5.0 x 3.2 x 1.2 mm)



Electrical Specifications

SMD Oscillators						
SCO5H18, SCO5H25, SCO5H28, SCO5H33, SCO5H50						
5.0 x 3.2 x 1.2 mm	CERAMIC, SMD	SCO5H18	SCO5H25	SCO5H28	SCO5H33	SCO5H50
INPUT VOLTAGE		+1.8 VDD	+2.5 VDD	+2.8 VDD	+3.3 VDD	+5.0 VDD
INPUT CURRENT	BELOW 10.000 MHz	6 mA MAX	7 mA MAX	8 mA MAX	10 mA MAX	20 mA MAX
	10.000 to 34.999 MHz	7 mA MAX	8 mA MAX	10 mA MAX	15 mA MAX	30 mA MAX
	35.000 TO 49.999 MHz	15 mA MAX	20 mA MAX	22 mA MAX	25 mA MAX	40 mA MAX
	50.000 MHz AND ABOVE	25 mA MAX	30 mA MAX	33 mA MAX	35 mA MAX	50 mA MAX
PACKAGE CONSTRUCTION	SEAM SEALED CERAMIC PACKAGE W/ METAL COVER. 4 SMD PADS FOR ELECTRICAL AND PHYSICAL ATTACH TO PCB.					
FREQUENCY RANGE	1.000 to 156.000 MHz*					
FREQUENCY STABILITY	ALL CONDITIONS **	+/-20 ppm, +/-25 ppm, +/-30 ppm, +/-50 ppm, and +/-100 ppm ARE MOST COMMON ***				
OPERATING TEMP. RANGE	0 °C TO +70°C IS STANDARD. -10°C to +70°C, -20°C to +70°C, AND -40°C to +85°C ARE COMMON					
OUTPUT LOAD	SELECT ONE LOAD	15 pF (HCMOS), 30 pF HIGH DRIVE AVAILABLE				
OUTPUT WAVESHAVE	CMOS, SQUAREWAVE					
RISE TIME, 10% TO 90% SIGNAL LEVELS	BELOW 40 MHz	5 ns MAX	5 ns MAX	5 ns MAX	4 ns MAX	4 ns MAX
	40 MHz AND ABOVE	4 ns MAX	4 ns MAX	4 ns MAX	3ns MAX	3ns MAX
FALL TIME, 90% TO 10% SIGNAL LEVELS	BELOW 40 MHz	5 ns MAX	5 ns MAX	5 ns MAX	4 ns MAX	4 ns MAX
	40 MHz AND ABOVE	4 ns MAX	4 ns MAX	4 ns MAX	3ns MAX	3ns MAX
SYMMETRY	AT 50% VDD	50/50 +/-5%				
LOGIC 1	LOAD = 15 pF (OR 30 pF)	90% VDD MIN				
LOGIC 0	LOAD = 15 pF (OR 30 pF)	10% VDD MAX				
STORAGE TEMP. RANGE	-55°C to +105°C					
STANDBY FUNCTION	LOGIC 1: HIGH IMPEDANCE - OSCILLATOR STOPS. LOGIC 0 -OR- N/C: NORMAL OPERATION					
STANDBY CURRENT	10 uA MAX					
AGING	3 PPM FIRST YEAR, 1 PPM PER YEAR THEREAFTER					
HERMETIC SEALED	SEAM SEALED	YES				
SOLDER PADS	QTY:	4 PAD				
RoHS	FULLY COMPLIANT					
LEGACY P/N		SCO57	SCO59	SCO58	SCO56	SCO53

* CONSULT FACTORY FOR EXTENDED RANGES

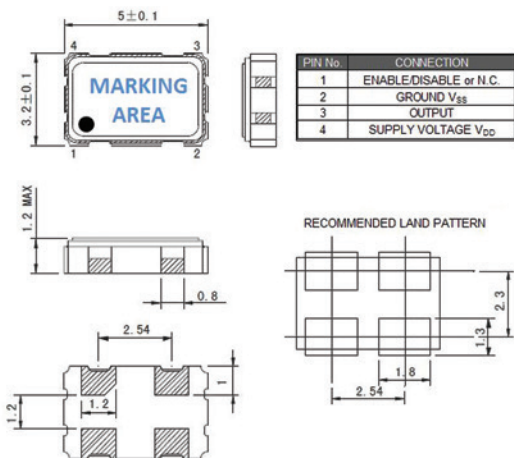
** INCLUDE +25°C TOLERANCE, OPERATING TEMPERATURE RANGE, INPUT VOLTAGE CHANGE, LOAD CHANGE, SHOCK AND VIBRATION. CONSULT FACTORY FOR TIGHTER OPTIONS

*** LIMITED STABILITIES BEYOND -20°C TO +70°C. STABILITY TABLE BELOW SHOWS TWO LETTER CODE FOR TEMPERATURE RANGE TO BE SELECTED.

NOTES: _____

Dimensions (Unit:mm)

*NKG Oscillator Part Example Key



PIN No.	CONNECTION
1	ENABLE/DISABLE or N.C.
2	GROUND V _{SS}
3	OUTPUT
4	SUPPLY VOLTAGE V _{DD}

Family/
Package

Voltage (+1.8VDD)

Frequency (20.000 MHz)

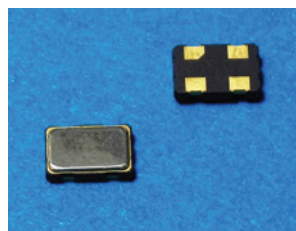
SCO5H-18 -20M000- A F P

P= 70°C
(3rd letter)

F= -30°C
(2nd letter)

A= 100 ppm
Total Tolerance over
Temperature +/- 100 ppm
(1st letter)

1st letter	Tolerance +/-	2nd letter	3rd letter
A	100 ppm	A= -55°	L= 50°
B	50 ppm	B= -50°	M= 55°
C	25 ppm	C= -45°	N= 60°
D	20 ppm	D= -40°	P= 70°
		E= -35°	Q= 75°
		F= -30°	R= 80°
		G= -25°	T= 85°
		H= -20°	U= 90°
		J= -10°	V= 100°
		K= 0°	W= 105°
			X= 110°
			Y= 120°
			Z= 125°



*NOT TO SCALE

Contact
www.nkg-usa.com/contactnkg