

SMD SPX0 2.5x2.0mm 1.8 - 5.0 VDC 32.768 kHz

SERIES "SX0"

FEATURES

- + Low power version / Stand-by current 1.5 μ A max.
- + Frequency stability to ± 25 ppm available
- + Available in 1.8, 2.5, 2.8, 3.3 and 5.0 VDC
- + New standard for small high performance low cost crystal oscillators
- + Low jitter for excellent performance

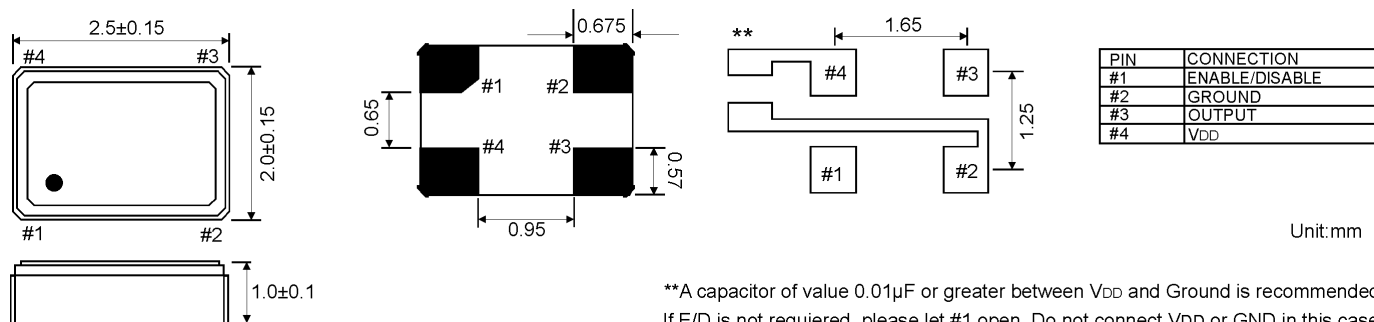


PB FREE / ROHS COMPLIANT

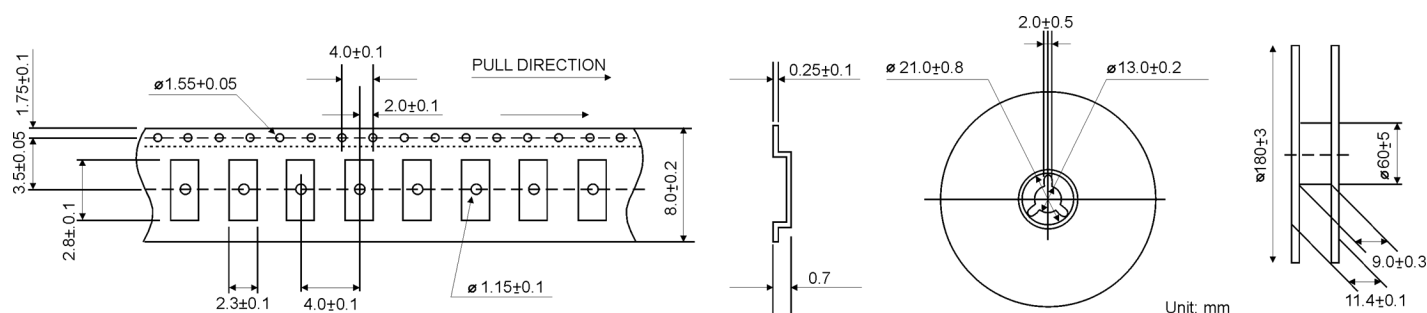
GENERAL DATA

PARAMETERS			PRODUCT FEATURES AND CONDITIONS	
SMD-OSCILLATOR SERIES			SX0-02502	
PACKAGE			Ceramic package 2.5 x 2.0 x 0.9 mm ³	
FREQUENCY			32.768 kHz	
FREQUENCY STABILITY			0/+70°C ~ -20/+70°C	±25 ~ ±100 ppm
			-40/+85°C	±50 ~ ±100 ppm
			-40/+105°C	±100 ppm
			The frequency stability contains the frequency tolerance at 25°C, the temperature stability, supply voltage change and load change. The aging is ±3ppm max. per year.	
OPERATING TEMPERATURE RANGE			-10/+60°C ~ -40/+85°C	
STORAGE TEMPERATURE RANGE			-55/+125°C	
INPUT	VOLTAGE		+1.8 ~+5.0 VDC ±10%	
	CURRENT		50 µA max. (No Load) for +1.8,2.5,2.8,3.3VDC / 60 µA max. (No Load) for +5.0VDC	
OUPUT	SYMMETRY		45/55% at 50% VDD	
	RISE AND FALL TIME		20 ns max. (10~90% VDD Level)	
	"0" LEVEL	CMOS	10% VDD max.	
	"1" LEVEL		90% VDD min.	
	LOAD	CMOS	15 pF max.	
PIN1		STANDARD	WITH ENABLE/DISABLE FUNCTION	
ENABLE / DISABLE FUNCTION			PIN #1 (E/D CONTROL)	PIN #3 (OUPUT)
			OPEN	ACTIVE
			HIGH "1" (VIH >80%VDD)	ACTIVE
			LOW "0" (VIL <20%VDD)	HIGH IMPEDANCE
			OUTPUT DISABLE TIME	150 ns max.
			OUTPUT ENABLE TIME	2 ms max.
			Stand-by current 1.5 µA max. (up to -40/+85°C)	
PERIOD JITTER RMS			15 ps typ.	
DELIVERY FORM			Tape and Reel / 2.000 pcs. per reel, lower QTY possible	
OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION				

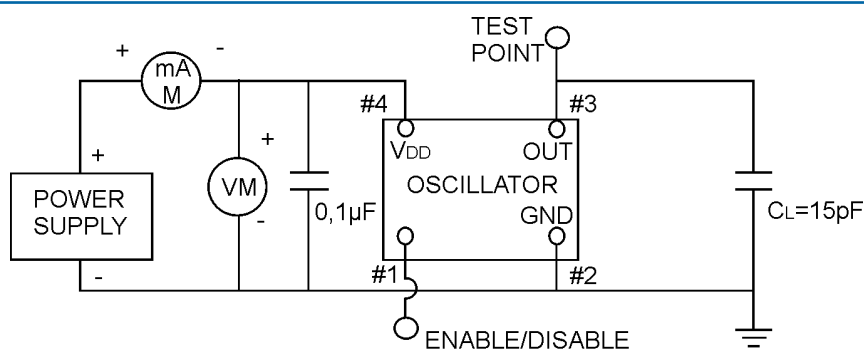
OUTLINE DRAWING



REEL SPECIFICATION

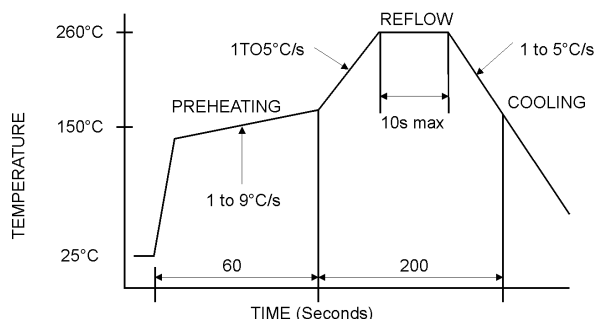


TEST CIRCUIT CMOS

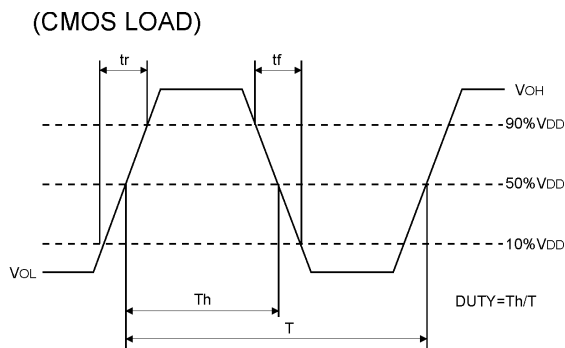


NOTE: CL includes probe and fixture capacitance

REFLOW SOLDER PROFILE



OUTPUT WAVE FORM CMOS



ORDERING INFORMATION

SERIES & VOLTAGE
SX018 = 1.8V
SX025 = 2.5V
SX028 = 2.8V
SX03 = 3.3V
SX0 = 5.0V

SYMMETRY
"- "= 40/60%
"S" = 45/55%

FREQUENCY STABILITY
"25" = ± 25 ppm
"50" = ± 50 PPM
"- " = ± 100 PPM

FREQUENCY RANGE
32.768 kHz

SX018-02502-S-E-25-M-32.768kHz-T

PACKAGE SIZE
"02502" = 2.5X2.0 MM

PIN1
"- " = NOT CONNECTED
"E" = ENABLED/DISABLED

TEMPERATURE RANGE
"- " = 0/+70°C
"N" = -10/+60°C
"M" = -20/+70°C
"W" = -40/+85°C
"Y" = -40/+105°C

DELIVERY FORM
"T" = TAPE AND REEL

EXAMPLE: SX018-02502-S-E-25-M-32.768kHz-T
PLEASE INDICATE YOUR REQUIRED PARAMETERS



PREMIUM QUALITY BY PETERMANN-TECHNIK



OUR COMPANY IS CERTIFIED ACCORDING TO ISO 9001:2015 IN OCTOBER 2016 BY THE DMSZ CERTIFIKATION GMBH.

THIS IS FOR YOU TO ENSURE THAT THE PRINCIPLES OF QUALITY MANAGEMENT ARE FULLY IMPLEMENTED IN OUR QUALITY MANAGEMENT SYSTEM AND QUALITY CONTROL METHODS ALSO DOMINATE OUR QUALITY STANDARDS.