

SMD SPX0 3.2x2.5mm 1.8 - 5.0 VDC 32.768 kHz

SERIES "SX0"

FEATURES

- + Low power version / Stand-by current 1.5 µA 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

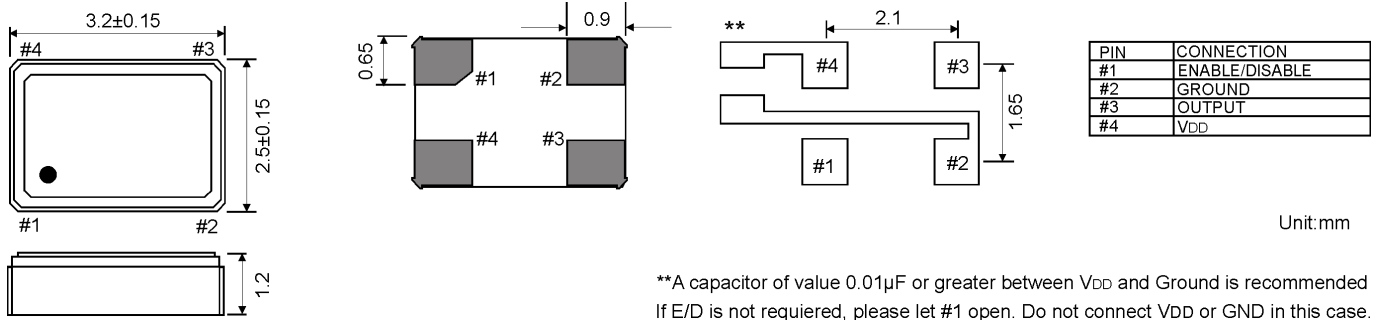


PB FREE / ROHS COMPLIANT

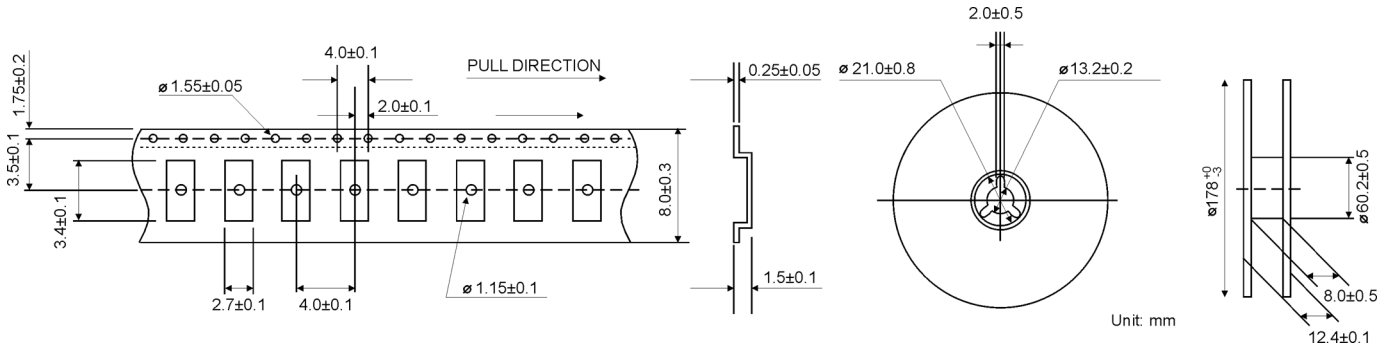
GENERAL DATA

PARAMETERS		PRODUCT FEATURES AND CONDITIONS		
SMD-OSCILLATOR SERIES		SX0-03025		
PACKAGE		Ceramic package 3.2 x 2.5 x 1.2 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 VDC ±0.2VDC		
	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		
SELECT YOUR REQUIRED OSCILLATOR (PRODUCT CONFIGURATOR)		REQUEST OSCILLATOR SAMPLES (SAMPLE CONFIGURATOR)		

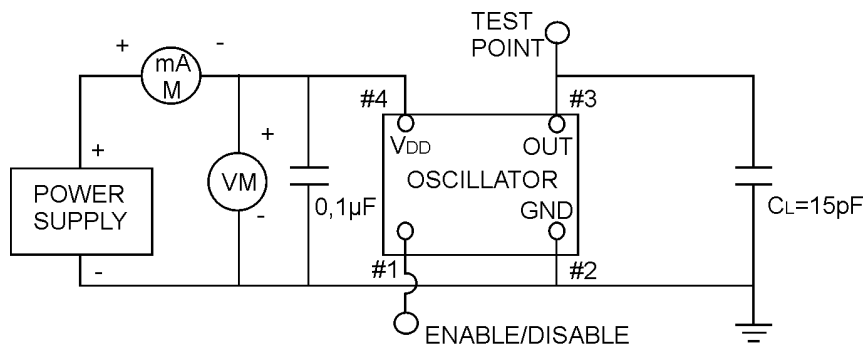
OUTLINE DRAWING



REEL SPECIFICATION



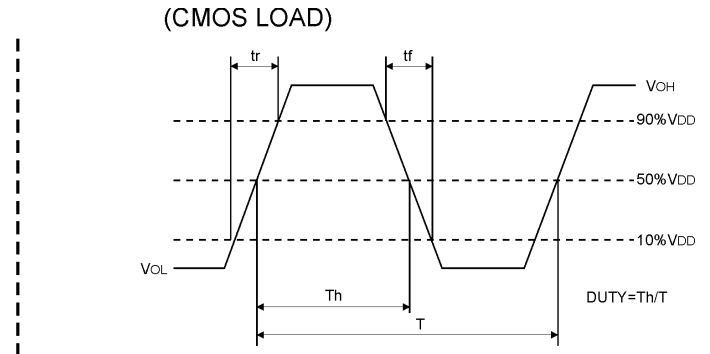
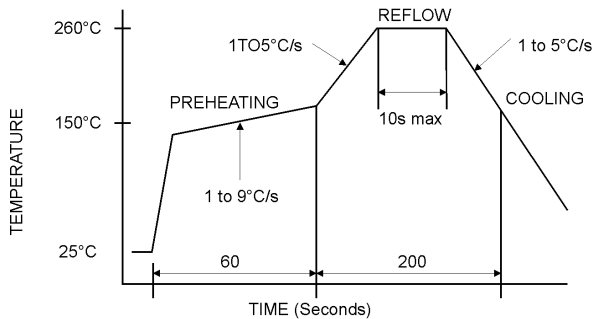
TEST CIRCUIT CMOS



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

FREQUENCY RANGE
 32.768 kHz

SX018-03025-S-E-25-M-32.768kHz-T

PACKAGE SIZE
 "03025" = 3.2X2.5 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: SX018-03025-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.