

# SMD SPXO 2.0x1.6 mm 1.8 - 3.3 VDC MHz

## SERIES "SXO"

### FEATURES

- + High reliability for low cost / Stand-by current 10 µA max.
- + Frequency stability to ±20 ppm available
- + Available in 1.8, 2.5, 2.8 and 3.3 VDC
- + Low jitter for high performance
- + Tight SMD SPXO package up to -40/105°C available



PB FREE / ROHS COMPLIANT

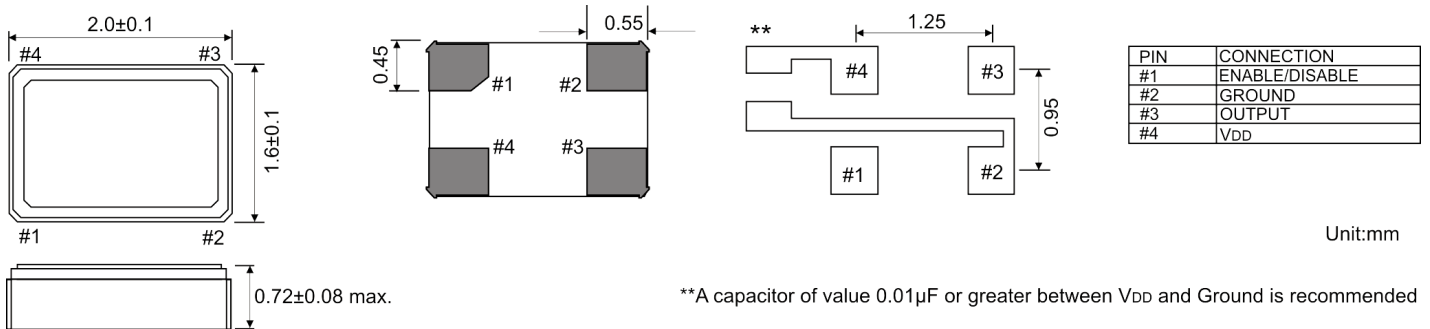
### GENERAL DATA

PARAMETERS		PRODUCT FEATURES AND CONDITIONS		
SMD-OSCILLATOR SERIES		SXO-02016		
PACKAGE		Cermic package 2.0 x 1.6 x 0.8 mm <sup>3</sup>		
FREQUENCY RANGE		0.4 ~ 80.0 MHz		
FREQUENCY STABILITY		0/+70°C ~ -10/+60°C	±20 ~ ±100 ppm	
		-20/+70°C	±25 ~ ±100 ppm	
		-40/+85°C ~ -40/+105°C	±50 ~ ±100 ppm	
		-40/+125°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/+125°C		
STORAGE TEMPERATURE RANGE		-55/+125°C		
INPUT	CURRENT	FREQUENCY	+1.8 VDC ±10%	+2.5 VDC ±10%
		0.4 ~ 32.0 MHz	1.0 mA max. (no load)	1.5 mA max. (no load)
		32.0 ~ 54.0 MHz	1.4 mA max. (no load)	2.0 mA max. (no load)
		54.0 ~ 80.0 MHz	3.0 mA max. (no load)	4.0 mA max. (no load)
		FREQUENCY	+2.8 VDC ±10%	+3.3 VDC ±10%
		0.4 ~ 32.0 MHz	1.8 mA max. (no load)	1.8 mA max. (no load)
		32.0 ~ 54.0 MHz	2.5 mA max. (no load)	2.5 mA max. (no load)
54.0 ~ 80.0 MHz	5.0 mA max. (no load)	5.0 mA max. (no load)		
OUTPUT	SYMMETRY	STANDARD	40/60% at 50% VDD Level	
		OPTION	45/55% at 50% VDD Level	
	RISE AND FALL TIME		7 ns max. (10~90% VDD Level) for +1.8 VDC ±10%	
			5 ns max. (10~90% VDD Level) for +2.5, 2.8, 3.3 VDC ±10%	
	"0" LEVEL	CMOS	10% VDD max.	
"1" LEVEL	90% VDD min.			
LOAD	CMOS	15 pF max.		
PIN1		STANDARD	WITH ENABLE / DISABLE FUNCTION	

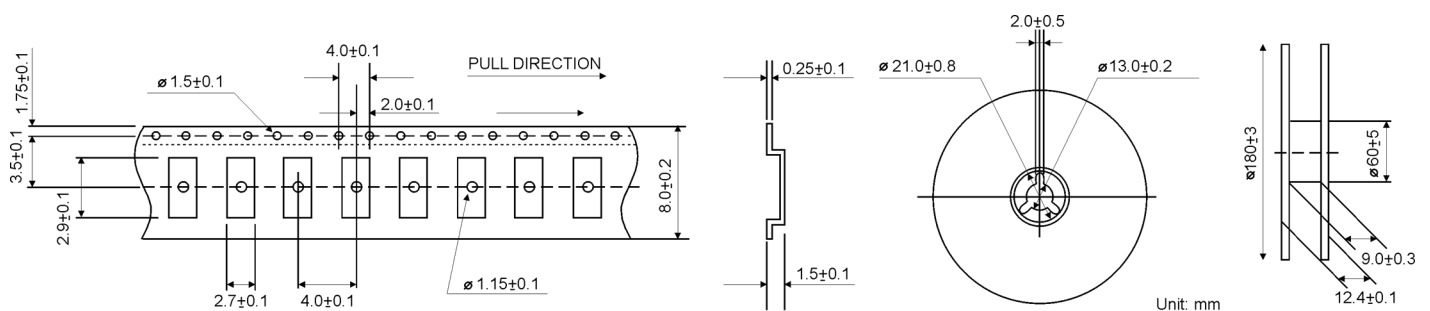
## GENERAL DATA (CONTINUED)

PARAMETERS	PRODUCT FEATURES AND CONDITIONS	
ENABLE / DISABLE FUNCTION	PIN #1 (E/D CONTROL)	PIN #3 (OUTPUT)
	OPEN	ACTIVE
	HIGH "1" (VIH >80%VDC)	ACTIVE
	LOW "0" (VIL <20%VDC)	HIGH IMPEDANCE
	OUTPUT DISABLE TIME	150 ns max.
	OUTPUT ENABLE TIME	1 ms max.
	STAND-BY CURRENT	10 µA max.
DELIVERY FORM	Tape and Reel / 2.000 pcs. per reel, other quantities are available on request	
SELECT YOUR REQUIRED OSCILLATOR (PRODUCT CONFIGURATOR)	REQUEST OSCILLATOR SAMPLES (SAMPLE CONFIGURATOR)	

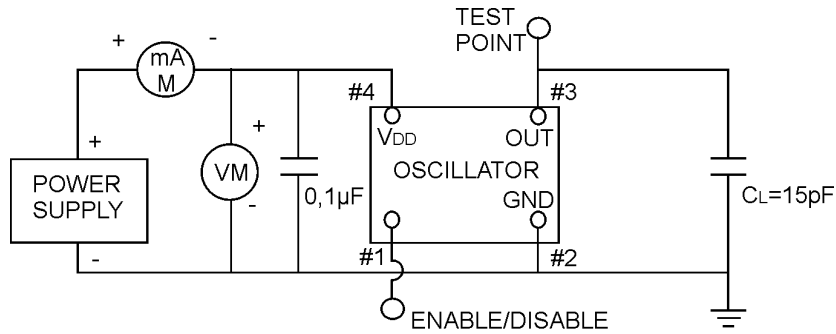
## OUTLINE DRAWING



## REEL SPECIFICATION



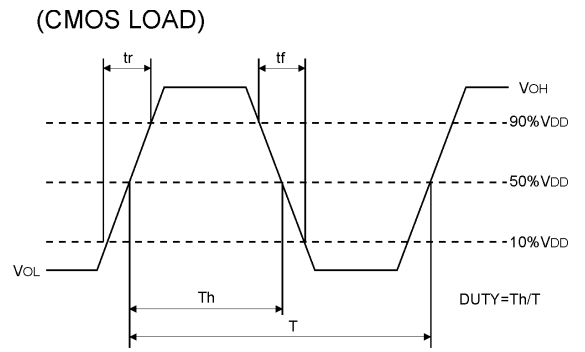
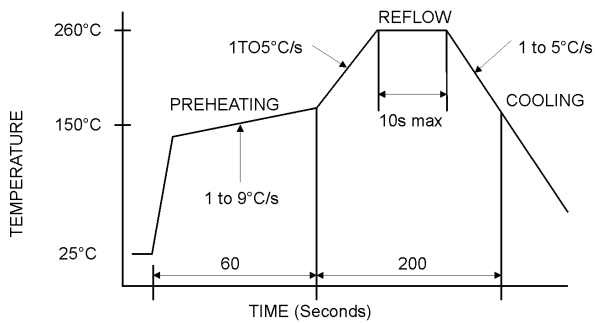
## TEST CIRCUIT CMOS



NOTE: CL includes probe and fixture capacitance

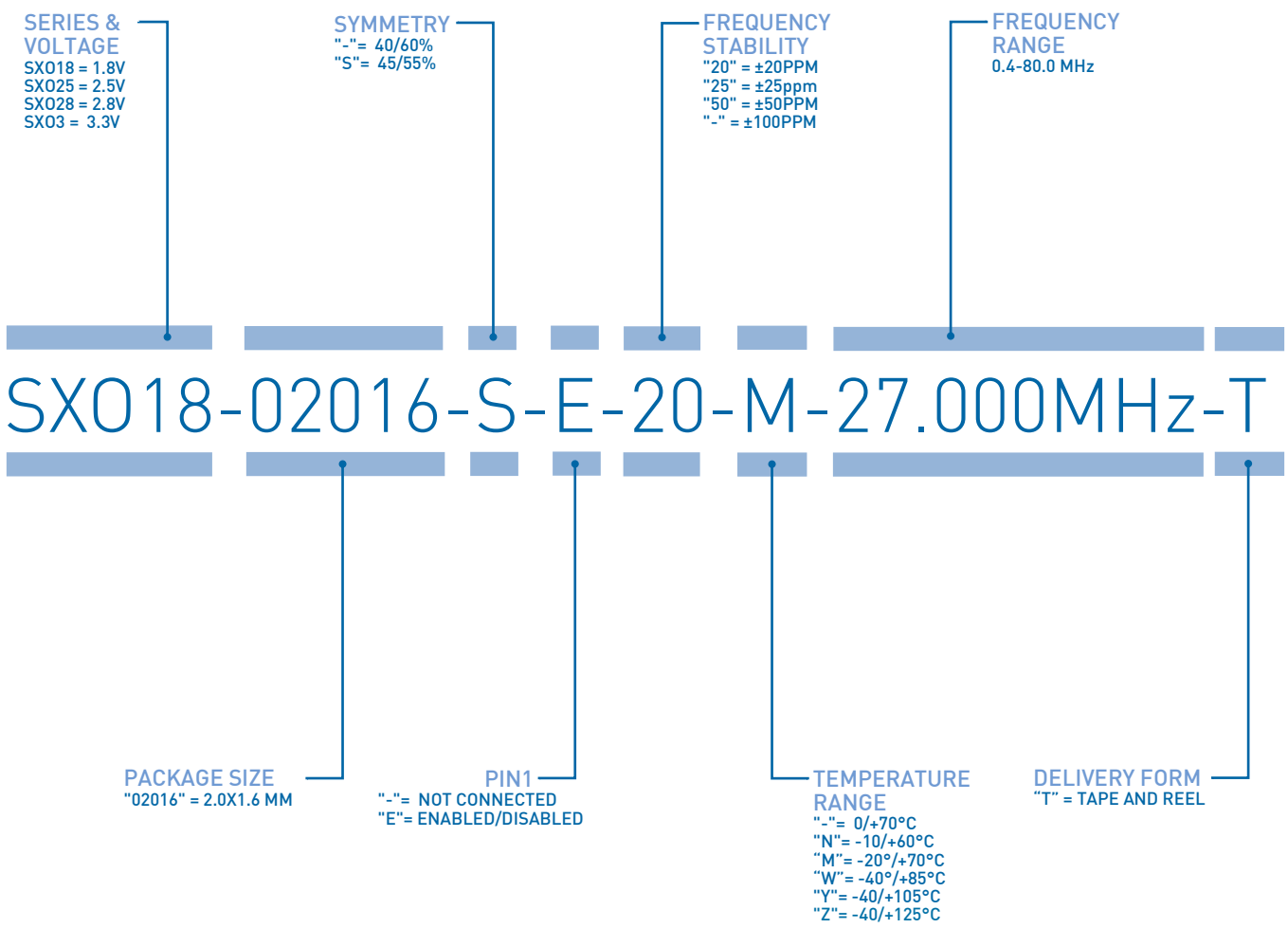
## REFLOW SOLDER PROFILE

## OUTPUT WAVE FORM CMOS





## ORDERING INFORMATION



EXAMPLE: SX018-02016-S-E-20-M-27.000MHz-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.