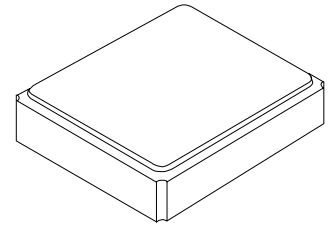


XVC5003

**100.000 MHz
VCXO**



SM7050-8

Features:

1. 3.3V Operation / CMOS Output
2. Enable / Disable Function (8-Pad)
3. Main application: WLAN, SONET/SDH/DWDM, Gigabite Ethernet, Storage Area Network, Digital Video
4. Surface mount 5.0mmx7.0mm crystal oscillator
5. Moisture Sensitivity Level (MSL) : Level-1
6. AEC-Q200 compliance

Electrical Characteristics:

	Parameters	SYM.	Electrical Spec.				Notes
			Min.	Typical	Max.	Unit	
1	Nominal Frequency	FL	100.000000			MHz	
2	Holder Type		-				7.0 * 5.0 * 1.8 mm , 8pads , SMD Type
3	Output Wave Form		-				Square Wave [CMOS output wave]
4	Input Voltage	V _{DD}	-3.135	3.3	3.465	V	D.C ± 5 %
5	Pad 1 Control Voltage Center	V _{con}		1.65		V	
6	Output Voltage High " 1 "	V _{oh}	2.9			V	V _{DD} -0.4 (min.)
7	Output Voltage Low " 0 "	V _{oL}			0.33	V	V _{DD} X 0.1 (max.)
8	Frequency Stability	$\Delta f / f_0$	-25		25	ppm	Over Operating Temperature
9	Pulling Range	Δf_c	-100		100	ppm	V _{con} = +1.65V ±1.35V
10	Current Consumption	I _{DD}		70		mA	measured with terminating resistors
11	Rise Time & Fall Time	T _r , T _f			5.0	n Sec.	10 % \longleftrightarrow 90 % of waveform
12	Duty Cycle	tw/t	45		55	%	at 50 % waveform
13	Star -up Time	ST			10	m Sec.	
14	Load	RL			15	pF	
15	Linearity				10	%	
16	Input Impedance	R _{vc}	5			M Ω	V _c terminal to ground

17	Modulation Bandwidth	Fc	10			KHz	measured at -3 dB	
18	Operating Temperature	T_opr	-40		85	°C		
19	Storage Temperature	T_stg	-55		125	°C		
20	Aging	fa	-3		3	ppm	first year	
21	RMS phase Jitter	Jrms		0.19		ps	12 KHz to 20 MHz integrated	
22	Phase Noise (dBc / Hz) [typical] For reference only	Offset	10 Hz	100 Hz	1k Hz	10k Hz	100k Hz	1M Hz
		100.000 MHz	-51	-75	-107	-127	-141	-151
23	OE Control on Pad 2	If V _{DD} * 80% (min.) is applied : Output. Enable						
		If V _{DD} * 20% (max.) is applied : Output Disable						

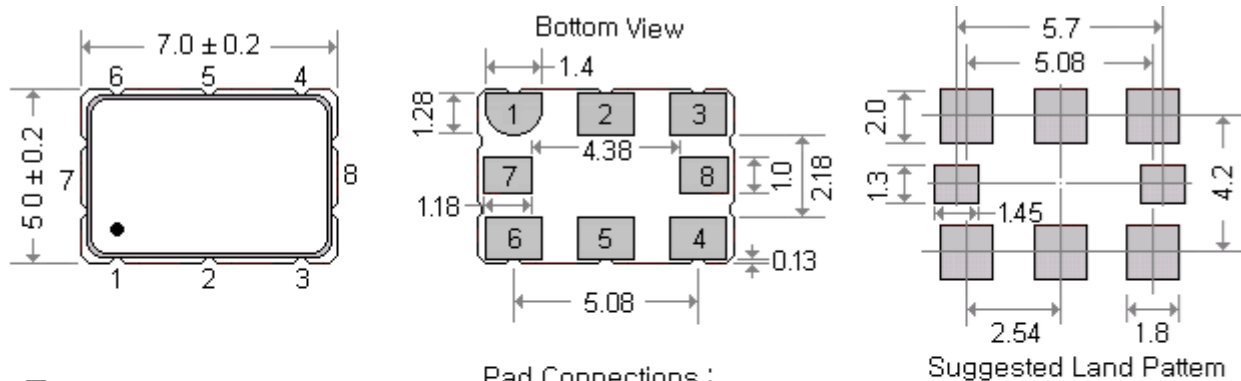


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

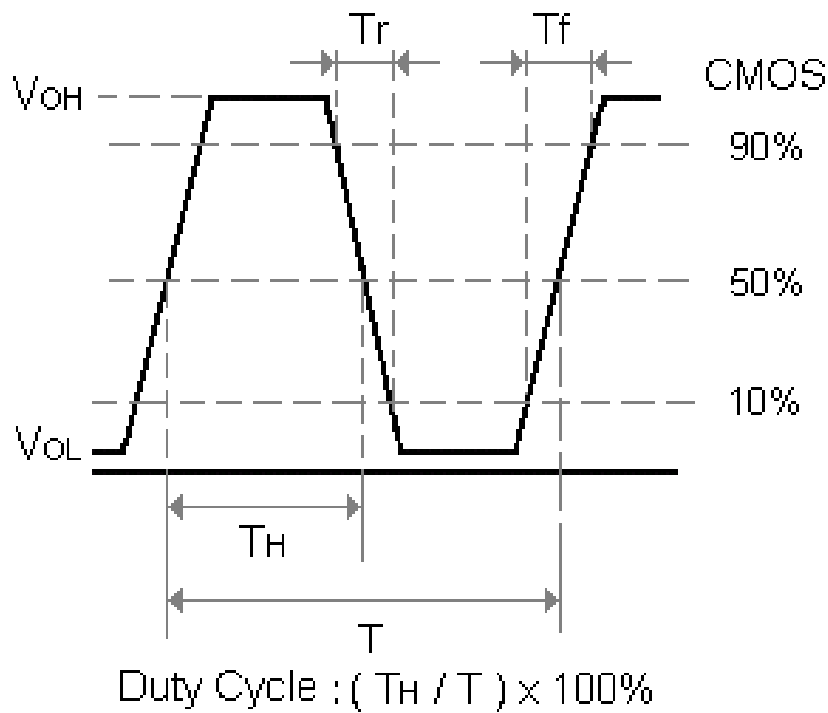
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

Mechanical Dimensions: (Unit: mm)



- Pad Connections :
- Pad 1 : Control Voltage
 - Pad 2 : Output Enable
 - Pad 3 : Ground
 - Pad 4 : Output
 - Pad 5 : Complimentary output
 - Pad 6 : Supply voltage
 - Pad 7 : Do not Connect
 - Pad 8 : Do not Connect

Output Waveform :



Marking :

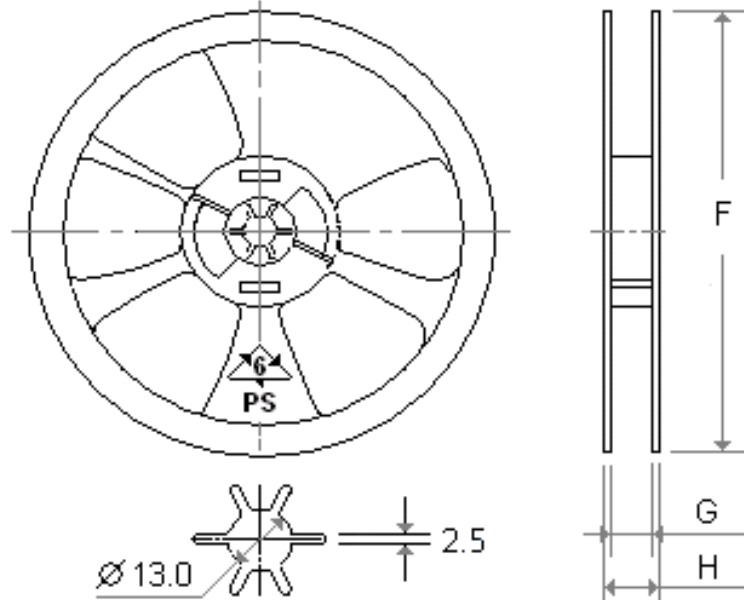
Y = Year, WW = Week, S = Shift



Reel Dimensions

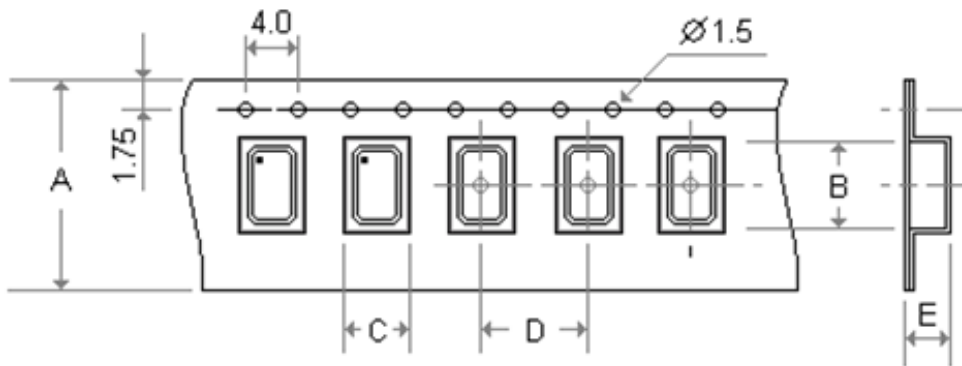
Tape and Reel Standard per ANSI/EIA-481

Reel Count: 7" = 1000



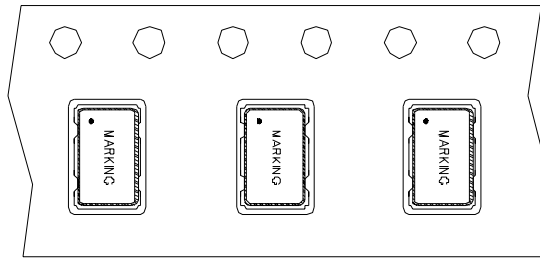
F	G	H
180	17.2	19.3

Tape Dimensions



A	B	C	D	E
16.0	7.3	5.3	8	1.9

Case Orientation in Tape



Recommended Reflow Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (10 seconds).
4. Time: 5 times maximum.

