



Approved by:
Checked by:
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SPECIFICATION

PRODUCT: QUARTZ CRYSTAL 27.13827MHZ +/-20PPM 15PF SMD 3225

MODEL: 3225-27.13827-15-2020

Product code: 40602700235

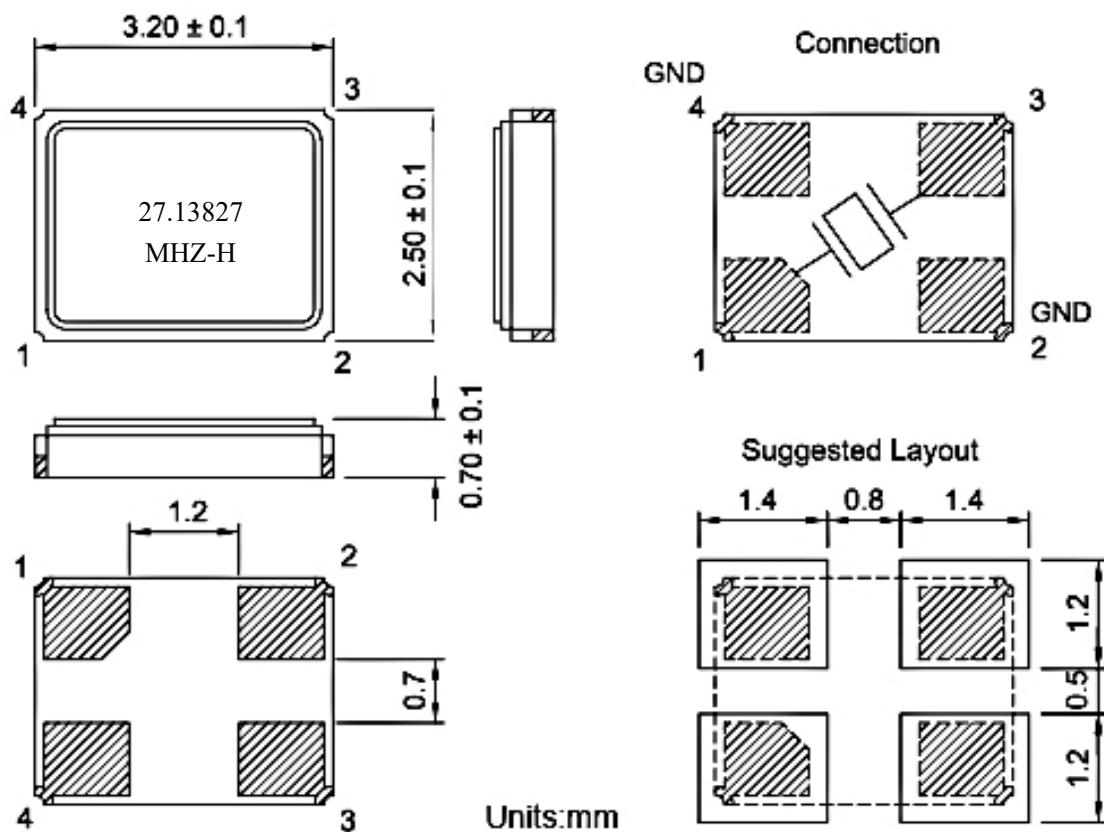
SHEN ZHEN HOPE MICROELECTRONICS CO.,LTD

1. Electrical characteristics

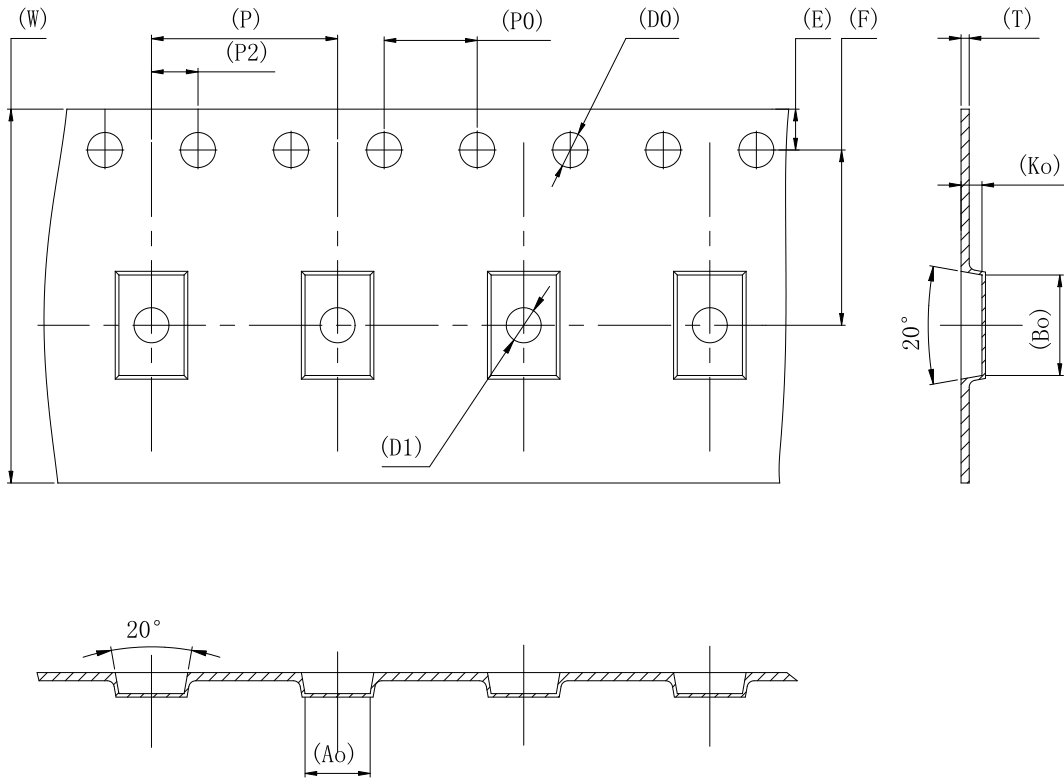
Type	SMD3225-4P Crystal Resonator
Nominal frequency:	27.138270MHz
Frequency tolerance at (25°C±3°C)	±20ppm
Mode of vibration	FUND
Load capacitance	15pF
Effective series resistance	50Ω
Shunt capacitance	≤3pF
Operating temperature range	-40°C~+85°C
Storage temperature range	-55°C~+125°C
Frequency stability vs. operating temperature	±20ppm
Drive level	100μW
Insulation resistance	500MΩ/100V±15V _{DC}
Aging	±3ppm/First year
Test machine	S&A 250B

Remark: Sample Data See Attachment

2. Dimension (mm)

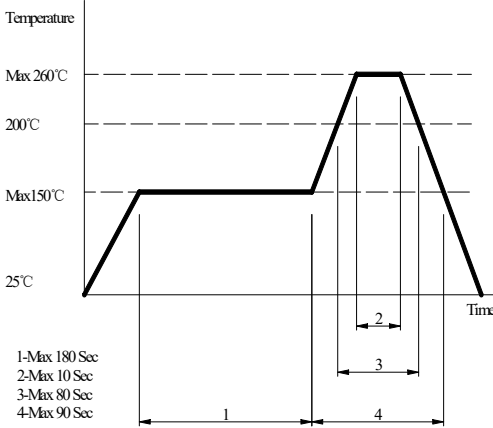


3.Packing Specification



W	16.00±0.05	P	8.00±0.10	A0	3.90±0.10	B0	6.40±0.10
S		P0	4.00±0.10	A1		B1	
E	1.75±0.10	P2	2.00±0.10			B2	
F	7.50±0.10	D0	$\phi 1.50 \pm 0.10$	K0	1.50±0.10		
T	0.35±0.05	D1	$\phi 1.50$ MIN	K1			

4. Reliability Specification

	Item	Condition	Standard
1	Drop characteristics	Free drop from 50cm height on a hard wooden board for 3 times. (Board is thickness more than 30 mm.)	Frequency change: $\leq 5\text{ppm}$ Rr as specification
2	Shake characteristics	Shake frequency 10~55Hz, cyc1~2 minutes, swing 1.5mm, direction x/y/z, all 30 minutes, test after 1 hours.	Frequency change: $\leq 5\text{ppm}$ Rr as specification
3	Airproof characteristics	Put crystal into the pressure cabin with alcohol, keep pressure 0.4~0.5mpa 10 minutes, then take out and blow for 5 minutes	IR $\geq 500\text{M}\Omega$
4	Weld characteristics	335 $\pm 5^\circ\text{C}$, 3 seconds	90% exhibit tin ok
5	Humidity characteristics	+40 $\pm 2^\circ\text{C}$ & 90%~95% R.H. 250 hours	Frequency change: $\leq 5\text{ppm}$ Rr as specification
6	Low temperature characteristics	-30 $\pm 2^\circ\text{C}$, 250 hours, put in room temperature, test after 1 hours.	Frequency change: $\leq 5\text{ppm}$ Rr as specification
7	High temperature characteristics	+85 $\pm 2^\circ\text{C}$, 250 hours, put in room temperature, test after 1 hours.	Frequency change: $\leq 5\text{ppm}$ Rr as specification
8	Temperature cycling	-30 $\pm 3^\circ\text{C}/30\pm 3\text{ min}$ ~+85 $\pm 2^\circ\text{C}/30\pm 3\text{ min}$, 5 cycles	Frequency change: $\leq 5\text{ppm}$ Rr as specification
9	Refluence examination		Frequency change: $\leq 5\text{ppm}$ Rr as specification