

SMD WATCH CRYSTAL 32.768 kHz

SERIES „M8208 32.768 KHZ ±20 PPM 12.5PF (-40/+85°C)“

FEATURES

- + Standard operating temperature range of -40/+85°C
- + Excellent clock generator for CPU's, Wireless, Mobile Comm., etc.



GENERAL DATA

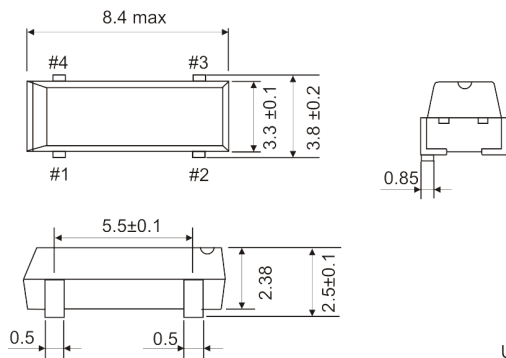
PARAMETERS	PRODUCT FEATURES AND CONDITIONS
SMD-CRYSTAL SERIES	M8208
NUMBER OF SOLDER PADS	4
FREQUENCY	32.768 kHz
FREQUENCY TOLERANCE AT 25°C	±20 ppm
LOAD CAPACITANCE (C _L)	12.5 pF
WORKING TEMPERATURE RANGE	-40/+85°C
SERIES RESISTANCE	50 kΩ max.
SHUNT CAPACITANCE (C ₀)	1.5 pF max.
TURNOVER TEMPERATURE	+25°C ±5°C
TEMPERATURE COEFFICIENT	-0.036 ppm/°C ² typ.
DRIVE LEVEL	0.1 μW max.
AGING	±5 ppm max. after first year
INSULATION RESISTANCE	>500 MΩ DC/100V ±10%
STORAGE TEMPERATURE	-55°/+125°C
DELIVERY FORM	Tape and Reel (3.000 pcs per reel, other quantities on request as cut off tape or bulks)
RoHS	RoHS compliant This product contains lead (Pb) according exemption No. 7(c)-I.
MARKING	Line 1 = P32768 Line 2 = WWYA (WWY = Date Code, A = CL 12.5pF)
Ordering Code	M8208 32.768 kHz ±20 ppm 12.5pF (-40/+85°C)
Customer P/N	
PETERMANN-TECHNIK P/N	QEU10010002/4

Notes

1. The reference temperature for all specified values and tests is +25°C.
2. No Ultrasonic Cleaning: Do not subject the M8208 to an ultrasonic cleaning environment. Permanent damage or long term reliability issues to the structure may occur.
3. Do not design any ground line under the M8208.

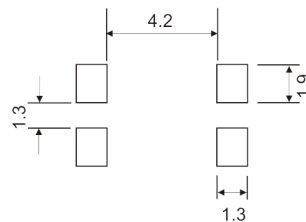
DIMENSIONS AND PATTERNS

PACKAGE SIZE – DIMENSIONS (UNIT:MM)
 8.4 X 3.8 X 2.5 MM

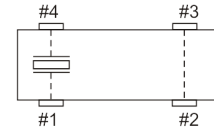


Unit:mm

Recommended land pattern

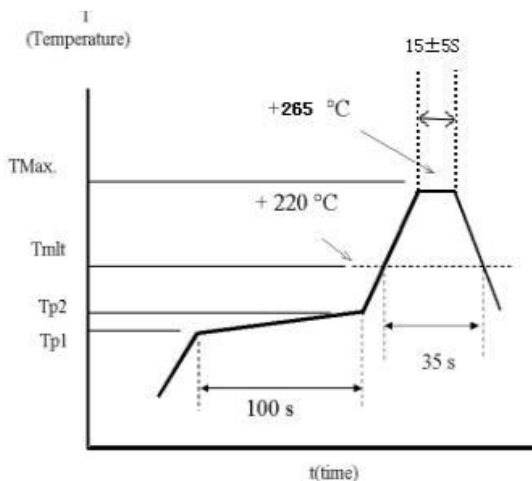


Internal connections



Pad Connection:
 #1 = Crystal
 #2 = N/C
 #3 = N/C
 #4 = Crystal
 Do not connect pad #2 + #3 to GND.
 This is absolutely forbidden.

REFLOW SOLDER PROFILE



Notes

- Using the infrared lamp at soldering process may cause uneven temperature rise on plastic surface of the parts, so that please keep the package temperature within left conditions.
- DO NOT dip the plastic part into solder.



PREMIUM QUALITY BY PETERMANN-TECHNIK



OUR COMPANY IS CERTIFIED ACCORDING TO ISO 9001:2015 AND 14001:2015

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.