

SMD WATCH CRYSTAL 32.768 kHz

SERIES „M8208 32.768 KHZ ±20 PPM 6PF (-40/+85°C)

FEATURES

- + Cheapest available SMD-MINI-Watch-Crystal
- + Ultra low profile
- + Standard operating temperature range of -40/+85°C
- + Excellent clock generator for CPU's, Wireless, Mobile Comm., etc.

GENERAL DATA

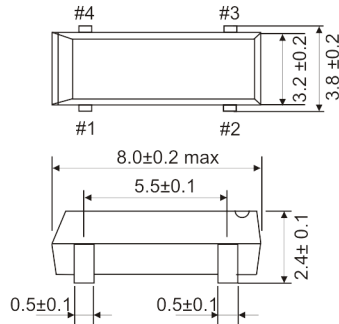
PARAMETERS	PRODUCT FEATURES AND CONDITIONS
SMD-CRYSTAL SERIES	M8208
NUMBER OF SOLDER PADS	4
FREQUENCY	32.768 kHz
FREQUENCY TOLERANCE AT 25°C	±20 ppm
LOAD CAPACITANCE (C _L)	6 pF
WORKING TEMPERATURE RANGE	-40/+85°C
SERIES RESISTANCE	50 kΩ max.
SHUNT CAPACITANCE (C ₀)	1.25 pF typ.
TURNOVER TEMPERATURE	+25°C ±5°C
TEMPERATURE COEFFICIENT	-0.04 ppm/°C·(T-T ₀) ² ± 10%
DRIVE LEVEL	1 μW max.
INSULATION RESISTANCE	>500 MΩ DC/100V ±10%
STORAGE TEMPERATURE	-40°/+85°C
DELIVERY FORM	Tape and Reel (2.500 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.
Ordering Code	M8208 32.768 kHz ±20 ppm 6pF (-40/+85°C)
Customer P/N	
PETERMANN-TECHNIK P/N	QEU10010012

Notes

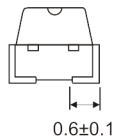
1. The reference temperature for all specified values and tests is +25°C.
2. No Ultrasonic Cleaning: Do not subject the M8208 to an ultrasonic cleaning environment. Permanent damage or long term reliability issues to the structure may occur.
3. Do not design any ground line under the M8208.

DIMENSIONS AND PATTERNS

PACKAGE SIZE - DIMENSIONS (UNIT:MM)
 8.2 X 3.8 X 2.4 MM

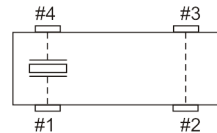


Recommended land pattern



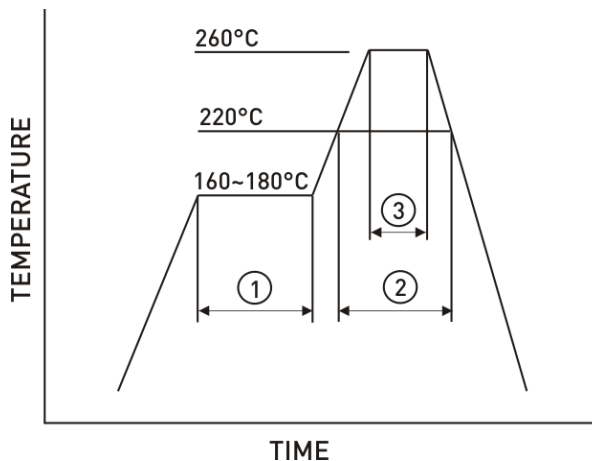
Unit:mm

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



①	Preheat	160~180°C	120sec.
②	Primary heat	220°C	60sec.
③	Peak	260°C	10sec. max.



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.