

CRYSTAL SPECIFICATION

Customer :
End User :
Customer Part No. : CAL8000020LFDAF0-QE04
Product Code : CAL8000020LFDAF0-QE04
Description : Quartz Crystal
Nominal Frequency : 8.000 MHz
Oscillation Mode : Fundamental
Holder Type : CA

Measure equipment

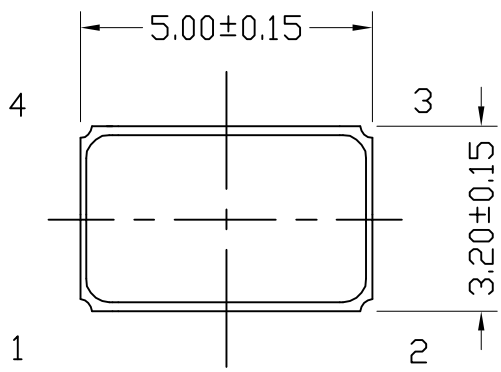
Electrical characteristics measured by Kolinker KH1240 or HP5100 equivalent.

Electrical Characteristics :

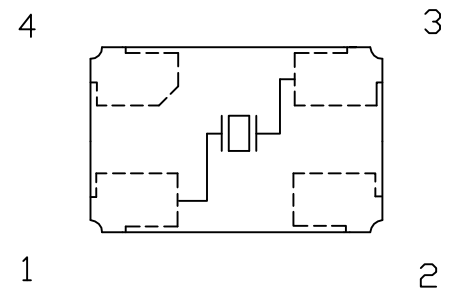
Load Capacitance	20 pF
Frequency Tolerance At 25 °C	± 20 ppm
Frequency Stability	± 100 ppm
Temperature Range	-40 ~ 125 °C
Operable Temperature Range	-45 ~ 130 °C ±50 ppm
Aging	< ± 5 ppm first year
Drive Level	50 µW typ. (200 µW Max.)
Equivalent Series Resistance	150 ohms Max.
Shunt Capacitance	2.5 pF Max.
Insulation Resistance	500M ohm Min at 100 VDC
Marking	HKC+8.000+LOT NO.
SPQ / Pack Type	5000 / REEL

Remarks for Customer Specifications :

Remark	1K/R
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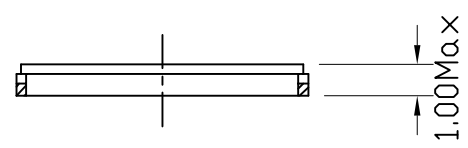


TOP VIEW

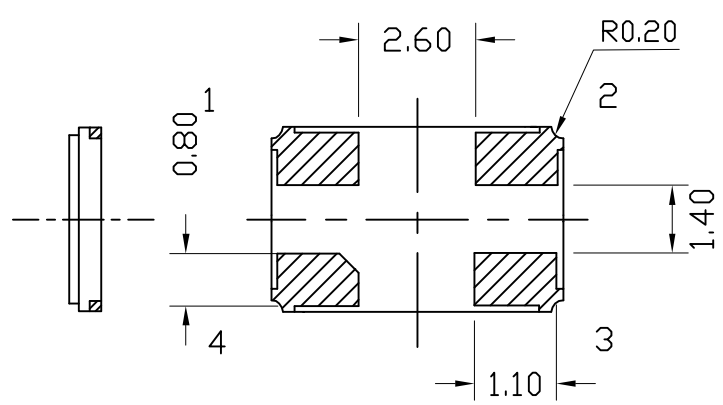


INTERNAL CONNECTION

REMARK: 1,3 -CRYSTAL
2,4 - GND

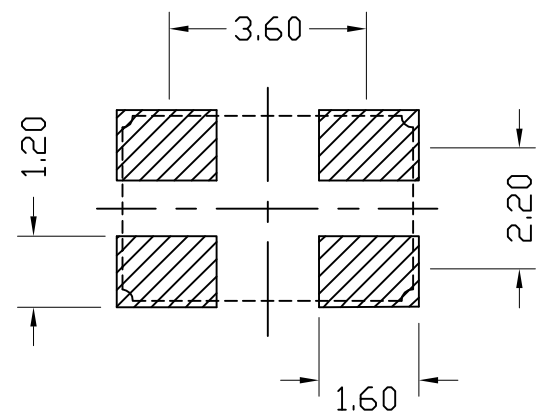


FRONT VIEW



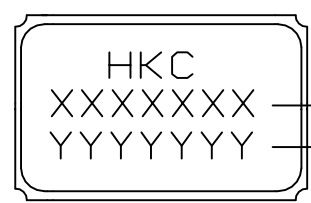
SIDE VIEW

BOTTOM VIEW



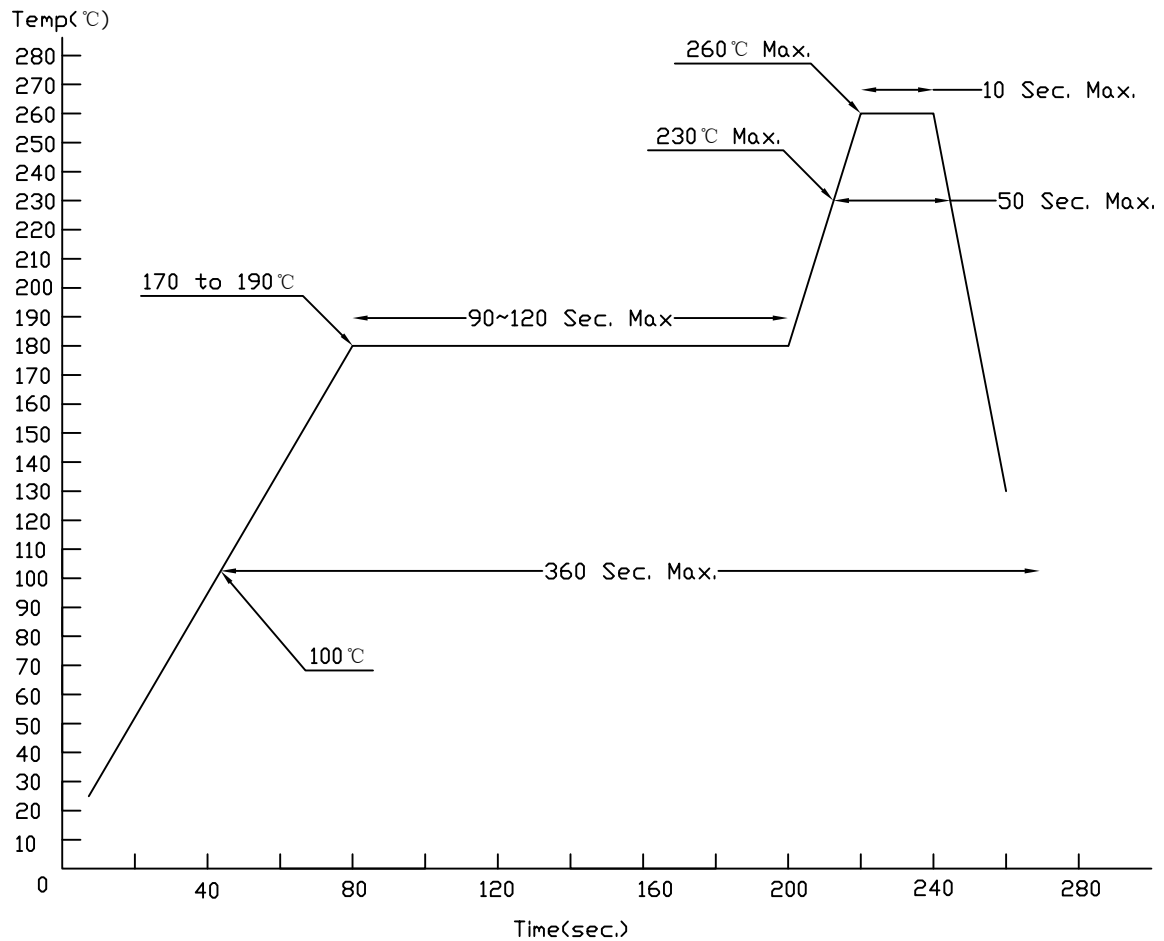
RECOMMENDED LAND PATTERN

MARKING INFORMATION



XXXXXX = CRYSTAL FREQUENCY
YYYYYYY = 7 DIGITS LOT NO.

		DIMENSION AND DETAILS						
ITEM	QTY.	DESCRIPTION		MAT'L	HDN.	SURFACE	MAT'L SIZE	REMARK
GENERAL TOLERANCE:		.X=±0.1	.XX=±0.05	DATE	NAME		TITLE: 5 x 3.2 CERAMIC SMD CRYSTAL	
		DRAWN	28-08-12	DuYang	PART No.: CA/CB			
		CHECK	28-08-12	ColTing	DRAWING No.: 12036151			
PROPRIETARY NOTICE: THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF HKC.		HONG KONG AUTOMOTIVE X'TALS LTD.				SCALE:NA		
DO NOT SCALE DRAWING		ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED				SHT. 1 OF 1		REV. 06



Note:

- Lead Free or RoHS Compliance
- Ramp up rate (from 217°C to 260°C): 3°C/Sec. Max.
- Ramp down rate: 4°C/Sec. Max.
- Recommended reflow times: 2 times Max.
- Effective products:
 - AT cut SMD type crystals including 49US SMD Crystal, Ceramic SMD Crystal, Glass Frit Crystal etc.
 - AT cut SMD type oscillations including crystal oscillator, VCXO, TCXO, □CXO etc.
- High temperature type SMD tuning fork crystal

ITEM	QTY.	DESCRIPTION	MAT'L	HDN.	SURFACE	MAT'L SIZE	REMARK
GENERAL TOLERANCE:		DATE	NAME		TITLE :		
X=±0.5	X°=±0.5°	DRAWN	TAN		Automotive Product Reflow Profile		
.X=±0.1	.X°=±0.1°	CHECK	PANG		PART No.: Refer to DWG Description		
.XX=±0.05	.XX°=±0.05°	APROV.	2015-05-12		DRAWING No.: 13000005		
PROPRIETARY NOTICE : THIS DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF HKC.					SCALE: NA		
DO NOT SCALE DRAWING		ALL DIMENSIONS IN mm UNLESS OTHERWISE STATED			SHT. 1 OF 1		
					REV. 00		