



Corp. Automotive Components Gr.

THE NEW VALUE FRONTIER



A KYOCERA GROUP COMPANY

Parameter on Ceramic Resonators

PBRC-HR Series

11th-Dec. 2015

KYOCERA Corporation
Automotive Components
Engineering division
Engineering section

京セラ株式会社

1. Series Name

PBRC-HR series

(+85deg.C / consumer/industrial / 7.4 x 3.4 mm)

2. Electrical Characteristics

(key parameters)

PN	Freq	Freq Initial Tolerance	Freq Temp Stability	Resonant Impedance
	(MHz)	(%)	(%)	ohm
PBRC2.00HR50X000	2.00	±0.5	±0.5	200
PBRC2.45HR50X000	2.45	±0.5	±0.5	200
PBRC2.46HR50X000	2.46	±0.5	±0.5	200
PBRC3.58HR50X000	3.58	±0.5	±0.5	30
PBRC3.68HR50X000	3.68	±0.5	±0.5	30
PBRC4.00HR50X000	4.00	±0.5	±0.5	30
PBRC4.19HR50X000	4.19	±0.5	±0.5	30
PBRC4.91HR50X000	4.91	±0.5	±0.5	30
PBRC5.00HR50X000	5.00	±0.5	±0.5	30
PBRC6.00HR50X000	6.00	±0.5	±0.5	30

PN	Freq	Freq Initial Tolerance	Freq Temp Stability	Resonant Impedance
	(MHz)	(%)	(%)	ohm
PBRC7.37HR50X000	7.37	±0.5	±0.5	30
PBRC8.00HR50X000	8.00	±0.5	±0.5	30
PBRC10.00HR50X000	10.00	±0.5	±0.5	150
PBRC11.06HR50X000	11.06	±0.5	±0.5	150
PBRC12.00HR50X000	12.00	±0.5	±0.5	150
PBRC14.74HR50X000	14.74	±0.5	±0.5	150
PBRC16.00HR50X000	16.00	±0.5	±0.5	150
PBRC20.00HR50X000	20.00	±0.5	±0.5	150

(other common parameters)

Items	Specifications
Standard Test IC	MC14069UB(2.0-8.0MHz) / MC74HCU04(8.01-20.0mHz) (Freescale)
Withstanding Voltage	100 V D.C. 10 sec max.
Max. Input Signal Voltage	15 Vp-p
Insulation Resistance	100 M Ω min. (at 10 V D.C.)
Operating Temperature Range	-40 to +85°C
Storage Temperature Range	-40 to +85°C
Aging for 10 years on Oscillating Frequency	fosc $\pm$ 0.30 % max. (at 25°C from initial value)

3-1. Measurement Condition

The reference temperature shall be 25 ± 2 °C.

The measurement shall be performed in the temperature range from 15 to 35°C unless otherwise the result is doubtful.

3-2. Measurement Circuit

Oscillating frequency shall be measured using the Kyocera standard test circuit shown in Fig. 1.

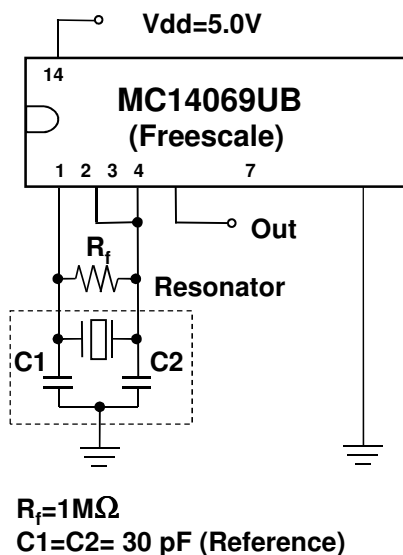
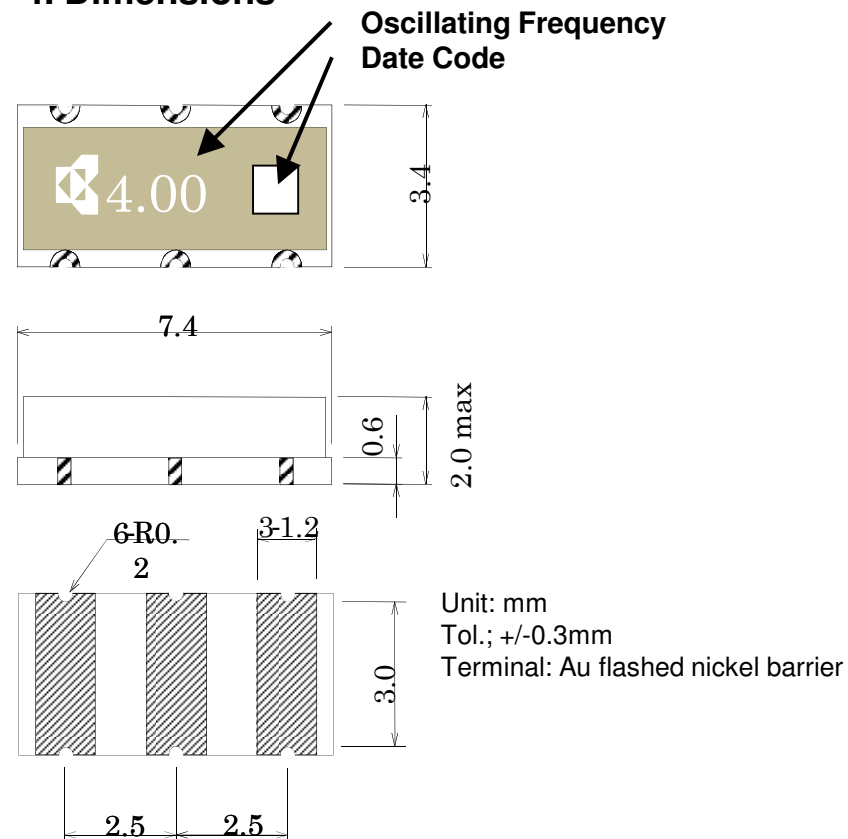


Fig.1 Standard Measuring Circuits

4. Dimensions



Oscillating Frequency

ex.4.00 (4.00 is the meaning of 4.00MHz/Oscillating Frequency)

Date Code

Jan. to Dec. 2013: A to M (except "I")

Jan. to Dec. 2014: N to Z (except "O")

Jan. to Dec. 2015: a to m (except "i")

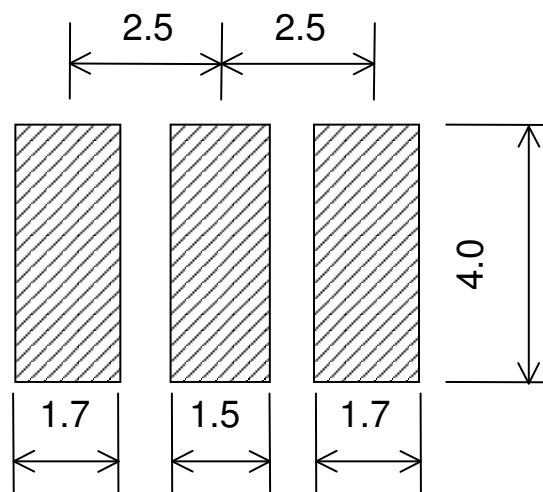
Jan. to Dec. 2016: n to z (except "o")

Note:

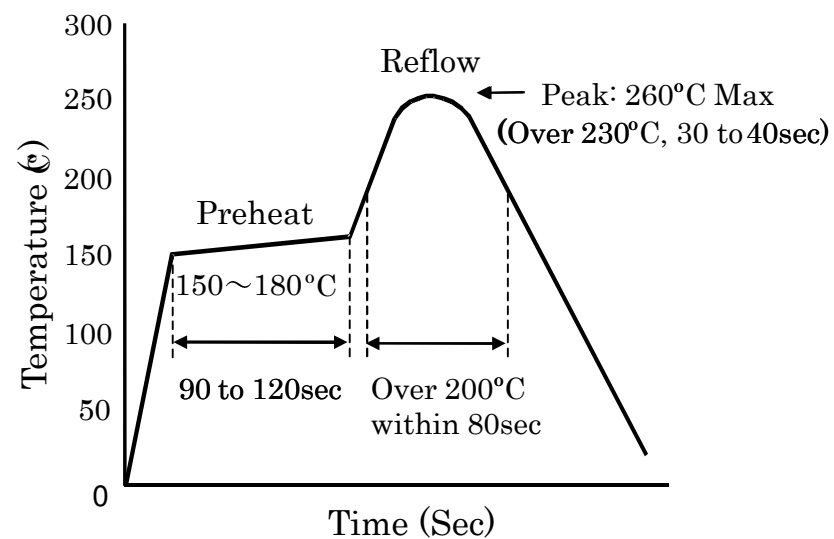
These alphabets should be after Jan.2017.

5. Recommended Land Pattern

Unit: mm



6. Recommended IR Reflow Profile



Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

AVX:

[PBRC18.00HR70X000](#) [PBRC-2.45BR-AL](#) [PBRC-2.45BR\AL](#) [PBRC-5.64BR](#) [PBRC-4.19BR-AL](#)

Kyocera:

[PBRC-4.00BR-AL](#) [PBRC-8.00BR-AL](#) [PBRC-6.60BR](#) [PBRC-6.75AR](#) [PBRC-6.96BR03](#) [PBRC-9.00BR07](#)
[PBRC5.64HR50X000](#) [PBRC-4.19AR](#) [PBRC-6.96AR](#) [PBRC-16.00BR07](#) [PBRC-11.0592BR](#) [PBRC-16.00BR](#) [PBRC-6.00BR-AL](#) [PBRC-11.06BR07](#) [PBRC-2.45BR](#) [PBRC-3.68BR](#) [PBRC-4.19BR](#) [PBRC-6.00BR](#) [PBRC-8.00BR](#) [PBRC-20.00BR](#) [PBRC-4.91BR](#) [PBRC-7.00AR](#) [PBRC-4.00AR](#) [PBRC-5.00AR](#) [PBRC-7.37BR](#) [PBRC-10.24BR07](#) [PBRC-10.70BR07](#) [PBRC-12.28BR07](#) [PBRC-12.29BR07](#) [PBRC-14.31BR07](#) [PBRC-14.32BR07](#) [PBRC-14.60BR07](#) [PBRC-15.00BR07](#) [PBRC-2.41AR](#) [PBRC-2.43AR](#) [PBRC-2.44AR](#) [PBRC-2.50AR](#) [PBRC-2.56AR](#) [PBRC-3.00AR](#) [PBRC-3.18BR](#) [PBRC-3.20BR](#) [PBRC-3.24AR](#) [PBRC-3.38BR](#) [PBRC-3.60AR](#) [PBRC-3.69BR](#) [PBRC-3.93AR](#) [PBRC-3.98AR](#) [PBRC-4.50AR](#) [PBRC-4.92AR](#) [PBRC-5.00BR](#) [PBRC-5.06BR](#) [PBRC-5.46BR\AL](#)