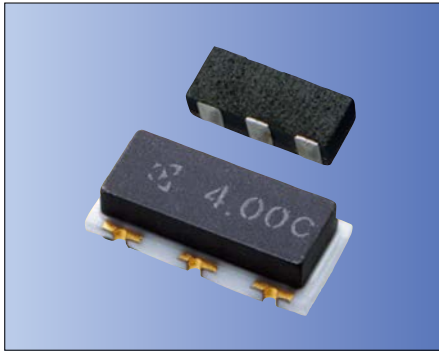


# MHz Band Ceramic Resonators (SMD) PBRV/ PRQV Frequency Tight Tolerance Series



for Automotive Applications



RoHS Compliant

## Features

- Improved frequency tolerance suitable for CAN-BUS application
- The series are high accuracy resonators whose total tolerance is available for less than  $\pm 3000$ ppm

## How to Order (PBRV)

PBRV 15.00 H R 10 Y 000  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Series (PBRV: Automotive)
- ② Frequency (MHz)
- ③ Type (H, M)
- ④ Packing R: Tape & Reel  
 PBRV-H (2000 pcs./ Reel)  
 PBRV-M (3000 pcs./ Reel)  
 (Null): Bulk
- ⑤ Frequency Tolerance at 25°C

**10**  $\pm 0.1\%$

- ⑥ Operating Temperature

**X**  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$     **Y**  $-40^{\circ}\text{C}$  to  $125^{\circ}\text{C}$   
**Z**  $-40^{\circ}\text{C}$  to  $150^{\circ}\text{C}$

- ⑦ Unique Code

## How to Order (PRQV)

PRQV 8.00 C R 15 10 Y 000  
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- ① Series (PRQV: Automotive)
- ② Frequency (MHz)
- ③ Type (C)
- ④ Packing R: Tape & Reel (3000 pcs./ Reel)  
 (Null): Bulk
- ⑤ Frequency Tolerance at 25°C

**15**  $\pm 0.15\%$

- ⑥ Built-in Capacitance 10pF: 10 5pF: 05
- ⑦ Operating Temperature

**X**  $-40^{\circ}\text{C}$  to  $85^{\circ}\text{C}$     **Y**  $-40^{\circ}\text{C}$  to  $125^{\circ}\text{C}$   
**Z**  $-40^{\circ}\text{C}$  to  $150^{\circ}\text{C}$

- ⑧ Unique Code

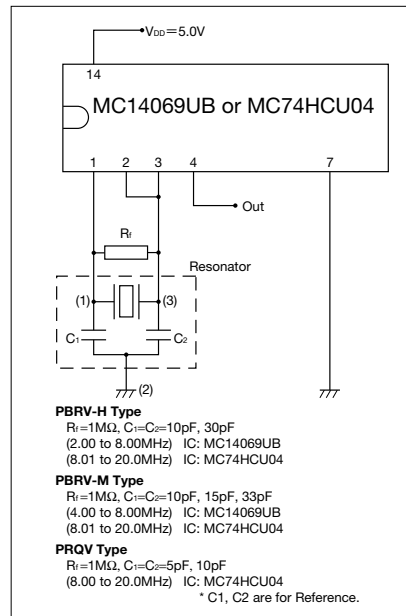
## Specifications

Series	Frequency Range (MHz)	Frequency Tolerance Initial + Temperature	Operating Temperature Range (°C)
PBRV-HR	2.0 to 20.0	$\pm 0.25\%$	-40 to 125
PBRV-MR	4.0 to 20.0	$\pm 0.25\%$	-40 to 125
PRQV	8.0 to 20.0	$\pm 0.25\%$	-40 to 125

\* Please refer to the specification sheet of each product for information including detail dimensions.

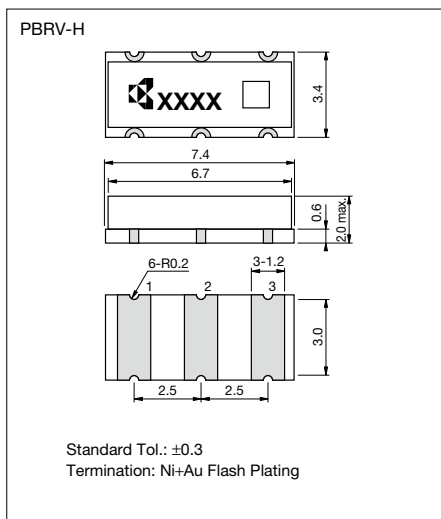
\* Please contact us for the operating temperature range of -40 to 150°C.

## Test Circuit

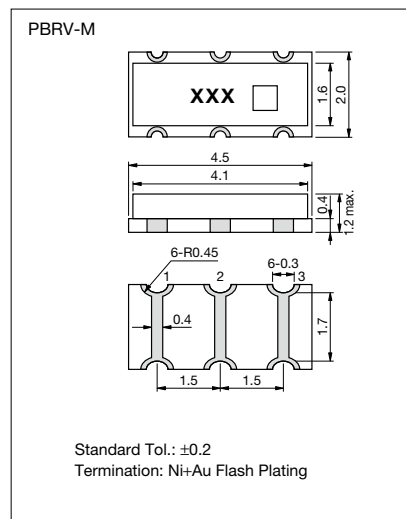


## Dimensions

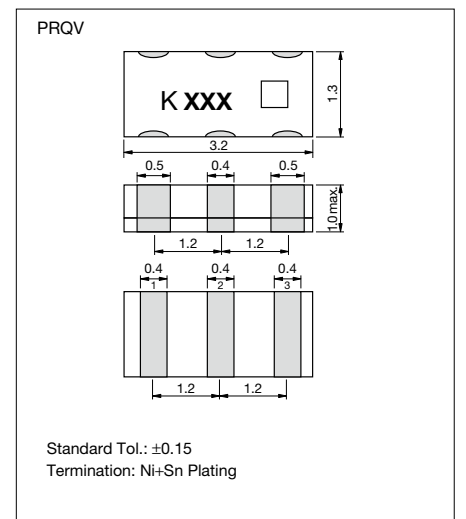
(Unit: mm)



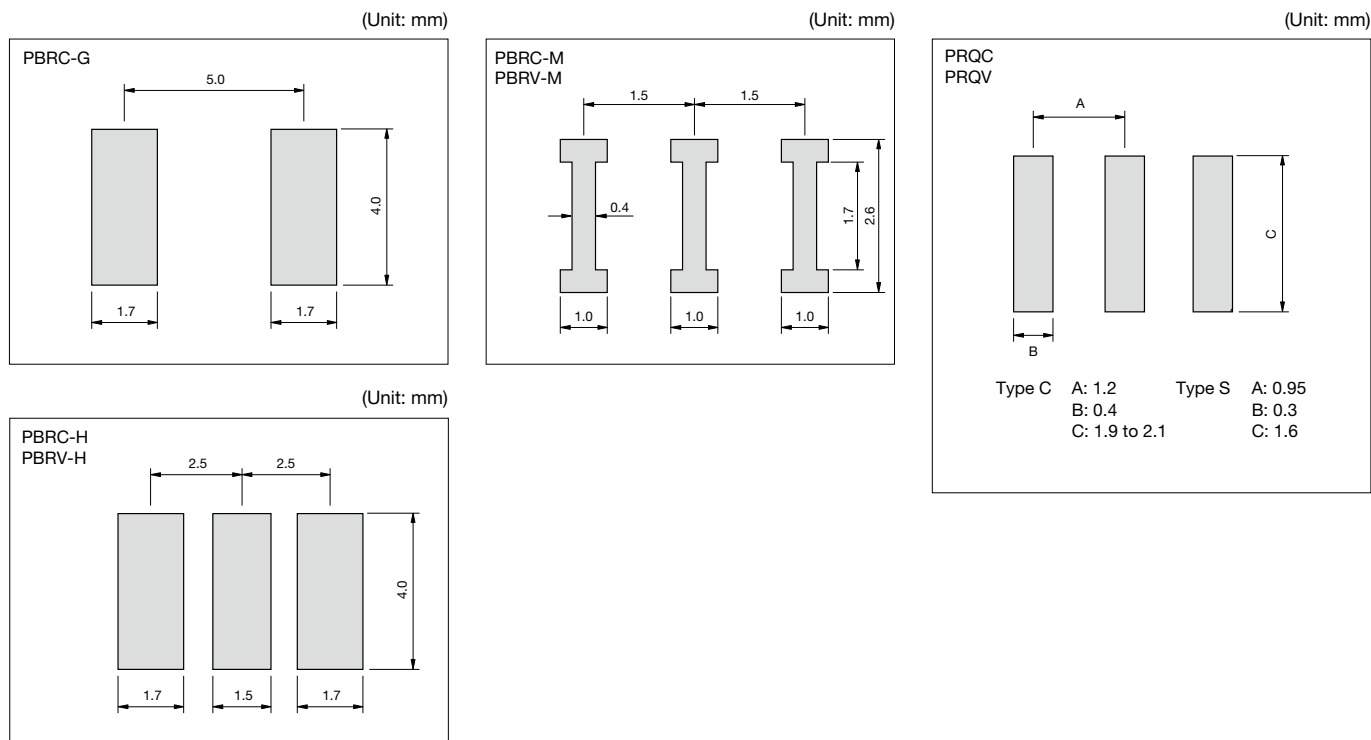
(Unit: mm)



(Unit: mm)

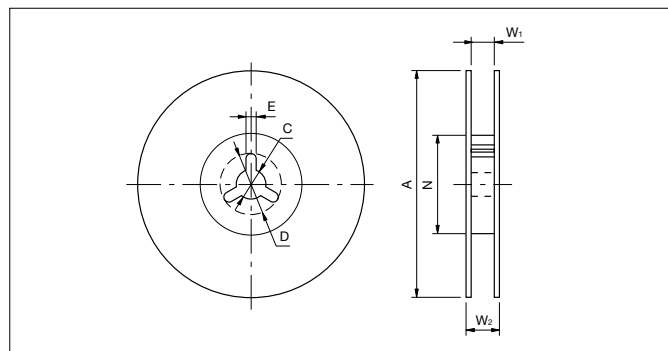


## Recommended Land Pattern

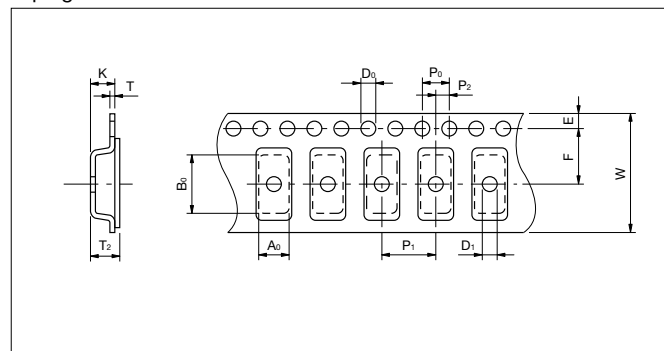


## Packaging

Reel



Taping



Code	A	N	W <sub>1</sub>	W <sub>2</sub>	C	D	E
7.4×3.4×2.0mm	250±2.0	80±2.0	16.5 <sup>+1.1</sup> <sub>-0.0</sub>	23.6 max.	13.0±0.5	21.0±0.8	2.0±0.5
4.5×2.0×1.2mm	180 <sup>+0</sup> <sub>-3</sub>	60 <sup>+1</sup> <sub>-0</sub>	13.0±0.3	15.4±1	13.0±0.2	21.0±0.8	2.0±0.5
3.2×1.3×1.3mm	180 <sup>+0</sup> <sub>-9</sub>	50 min	9.0±0.3	12.4 max.	13.0±0.5	21.0±0.8	2.0±0.5

Code	A <sub>0</sub>	B <sub>0</sub>	W	F	E	P <sub>1</sub>	P <sub>2</sub>	P <sub>0</sub>	D <sub>0</sub>	D <sub>1</sub>	T	T <sub>2</sub>	K
7.4×3.4×2.0mm	3.80±0.1	7.80±0.1	16.00±0.3	7.50±0.1	1.75±0.1	8.00±0.1	2.0±0.1	4.00±0.1	1.50 <sup>+0.1</sup> <sub>-0.0</sub>	1.50 <sup>+0.1</sup> <sub>-0.0</sub>	0.30±0.05	2.45±0.2	2.40±0.2
4.5×2.0×1.2mm	2.20±0.1	4.70±0.1	12.00±0.2	5.5±0.05	1.75±0.1	4.00±0.1	2.0±0.05	4.00±0.1	1.50 <sup>+0.1</sup> <sub>-0.0</sub>	1.0±0.1	0.30±0.05	1.85 max.	1.80 max.
3.2×1.3×1.3mm	1.50±0.2	3.45±0.2	8.00±0.3	3.50±0.05	1.75±0.1	4.00±0.1	2.0±0.05	4.00±0.1	1.50 <sup>+0.1</sup> <sub>-0.0</sub>	1.0 <sup>+0.1</sup> <sub>-0.0</sub>	0.25±0.05	1.40 max.	1.10±0.2