

for Automotive



RoHS Compliant

Features

- Miniature & low profile
- Rectangular shape allows easy pick and placement
- Component cost and space saving
- High density mounting possible
- Reflow solderable & washable
- High reliability, high temperature operating with ceramic case

Applications

- Automotive
- ABS
- ECU
- Air-Bag System

How to Order

PBRV 15.00 H R 10 Y 0AB
① ② ③ ④ ⑤ ⑥ ⑦

- ① Series (PBRV: Automotive)
- ② Frequency (MHz)
- ③ Type (H, M)
- ④ Packing _ Bulk (Null) R Reel

⑤ Frequency Tolerance at 25°C

| | | | |
|----|-------|----|-------|
| 10 | ±0.1% | 20 | ±0.2% |
| 30 | ±0.3% | 40 | ±0.4% |
| 50 | ±0.5% | 70 | ±0.7% |

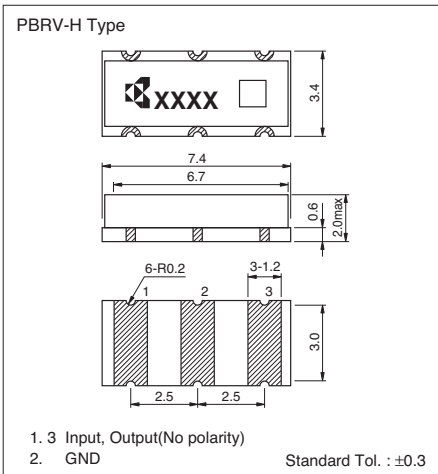
⑥ Operating temperature

| | | | |
|---|-------------|---|-------------|
| X | -40 / 85°C | Y | -40 / 125°C |
| Z | -40 / 150°C | | |

⑦ Unique code

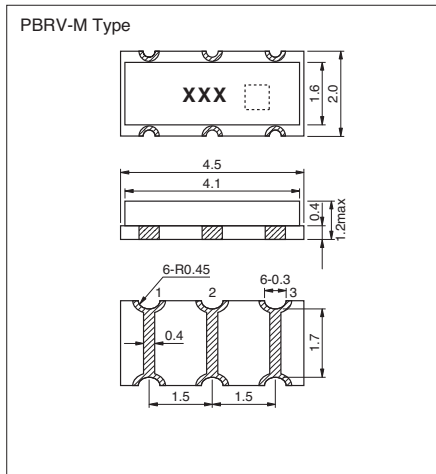
Dimensions

(Unit : mm)

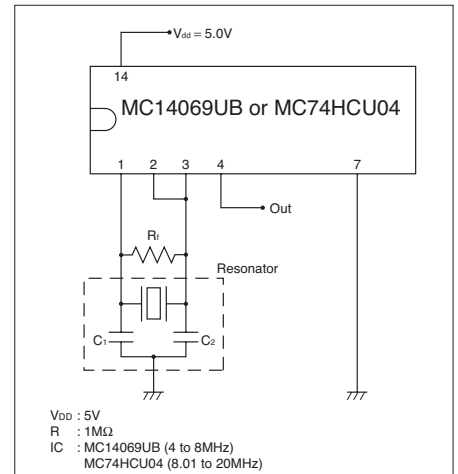


| # | Pin # |
|---|--------|
| 1 | Input |
| 2 | Ground |
| 3 | Output |

(Unit : mm)



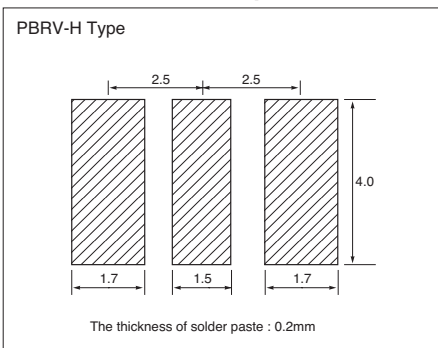
Test Circuit



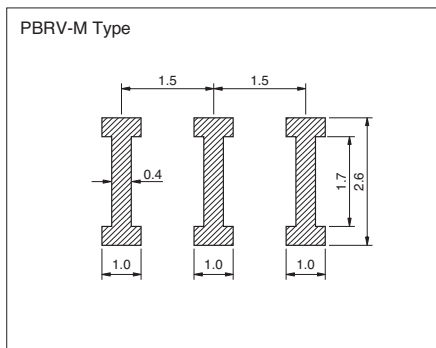
Notice
Please refer to IC Application Guide on our WEB site for IC matching.

Recommended Land pattern

(Unit : mm)



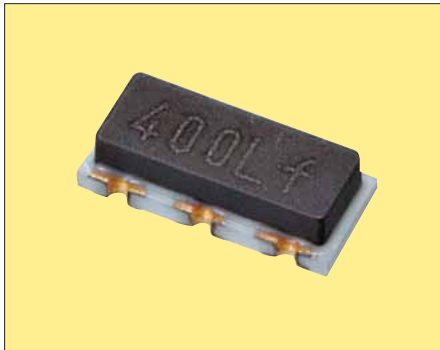
(Unit : mm)



Specifications

| Series | Frequency Range(MHz) | Frequency Tolerance(25°C) | Temperature Stability |
|--------|----------------------|---------------------------|--|
| PBRV-H | 4.00 to 8.00 | ±0.5% (op. ±0.3%) | Y: ±0.5%(-40 to +125°C) Z: ±0.5%(-40 to +150°C) |
| PBRV-M | 8.01 to 20.00 | ±0.7% (op. ±0.5%) | Y: ±0.1%(-40 to +125°C) Z: ±0.2%(-40 to +150°C) |

Please contact our local sales office if you need without capacitor type and tight frequency tolerance type for CANBUS Application.



RoHS Conforming

Features

- Improved frequency tolerance for CANBUS Application of Automotive

How to Order

PBRV 15.00 H R 10 Y 0AB
① ② ③ ④ ⑤ ⑥ ⑦

① Series (PBRV: Automotive)
(PBRC: Consumer)

② Frequency (MHz)

③ Type(H,M)

④ Packing _ Bulk
(Null)

R Reel

⑤ Frequency Tolerance at 25°C

| | | | |
|-----------|-------|-----------|-------|
| 10 | ±0.1% | 20 | ±0.2% |
| 30 | ±0.3% | 40 | ±0.4% |
| 50 | ±0.5% | 70 | ±0.7% |

⑥ Operating temperature

| | | | |
|----------|-------------|----------|-------------|
| X | -40 / 85°C | Y | -40 / 125°C |
| Z | -40 / 150°C | | |

⑦ Unique code

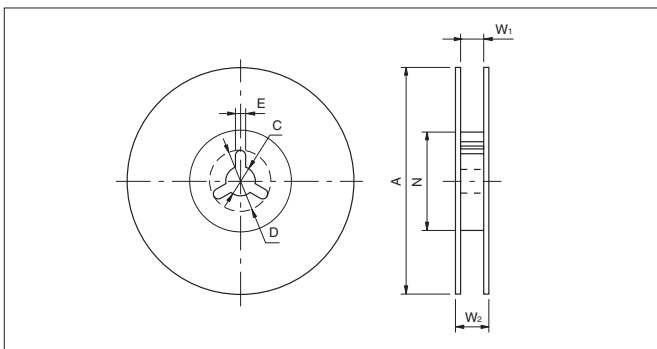
Specifications

| Series | PBRV-HR/MR | PBRV-HR/MR | PBRC-HR/MR | PBRC-HR/MR |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|
| Part Number | PBRV-HR/MR 10Y□□□ | PBRV-HR/MR 10Y□□□ | PBRC-HR/MR 10X□□□ | PBRC-HR/MR 10Y□□□ |
| Operating Temperature Range | -40 to +125°C | -40 to +125°C | -40 to +85°C | -40 to +85°C |
| Frequency Range | 4.0 to 7.9MHz | 8.0 to 20.0MHz | 4.0 to 7.9MHz | 8.0 to 20.0MHz |
| Initial+Temperature | ±0.3% | ±0.2% | ±0.3% | ±0.2% |
| Aging | ±0.1% | ±0.1% | ±0.1% | ±0.1% |
| Total Frequency Tolerance | ±0.4% | ±0.3% | ±0.4% | ±0.3% |

Dimensions: See each page for each series.
Aging: 10 years at 25°C

Packaging

Reel

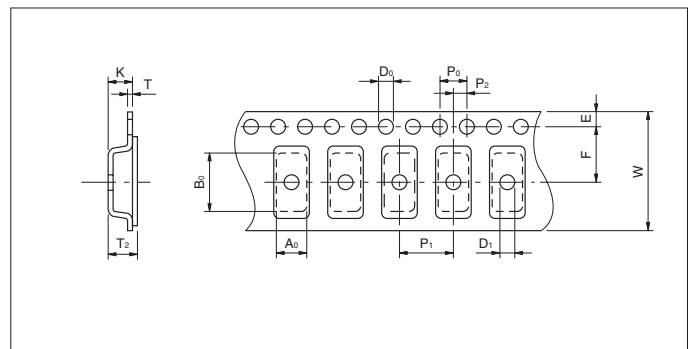


2,000pcs/Reel

| Code | A | N | W ₁ | W ₂ |
|------|--------------------------------|-------------------------------|--------------------------------------|----------------|
| | 250±2.0 | 80±2.0 | 16.5 ^{+1.1} _{-0.0} | 23.6max |
| | 180 ⁺³ ₀ | 60 ⁺¹ ₀ | 13.0±0.3 | 15.4±1 |
| Code | C | D | E | |
| | 13.0±0.5 | 21.0±0.8 | 2.0±0.5 | |
| | 13.0±0.2 | 21.0±0.8 | 2.0±0.5 | |

* Upper line shows external dimensions 7.4×3.4×2.0mm
Lower line shows external dimensions 4.5×2.0×1.2mm
7.4×3.4×2.0mm=PBRC-G, PBRC-H, PBRV-G, PBRV-H
4.5×2.0×1.2mm=PBRC-L, PBRC-M, PBRV-L, PBRV-M

Taping



| Code | A ₀ | B ₀ | W | F | E | P ₁ |
|------|----------------|-----------------------------------|-----------|----------------|----------|----------------|
| | 3.80±0.1 | 7.80±0.1 | 16.00±0.3 | 7.50±0.1 | 1.75±0.1 | 8.00±0.1 |
| | 2.20±0.1 | 4.70±0.1 | 12.00±0.2 | 5.5±0.05 | 1.75±0.1 | 4.00±0.1 |
| Code | P ₀ | D ₀ | T | T ₂ | K* | |
| | 4.00±0.1 | 1.50 ^{+0.1} ₀ | 0.30±0.05 | 2.45±0.2 | 2.40±0.2 | |
| | 4.00±0.1 | 1.50 ^{+0.1} ₀ | 0.30±0.05 | 1.85max | 1.80max | |

* Upper line shows external dimensions 7.4×3.4×2.0mm
Lower line shows external dimensions 4.5×2.0×1.2mm
7.4×3.4×2.0mm=PBRC-G, PBRC-H, PBRV-G, PBRV-H
4.5×2.0×1.2mm=PBRC-L, PBRC-M, PBRV-L, PBRV-M