AVX KYOCERA

# KBR, -M, -MS, -MSA Series Ceramic Resonators

## MHz Band Ceramic Resonators

## $f_o$: 2.00 to 12.00 MHz

### FEATURES

1) Ultracompact, lightweight design
2) Resistant to damage from impact and vibration
3) Excellent temperature stability (±0.3%)
4) Low cost

### HOW TO ORDER

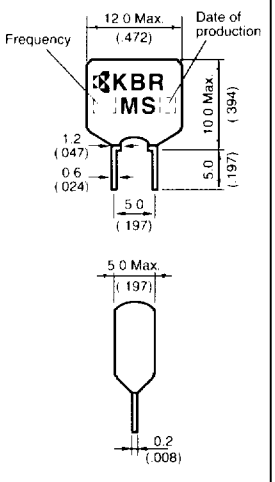
**KBR - 4.00 MSA TR**

① ② ③ ④

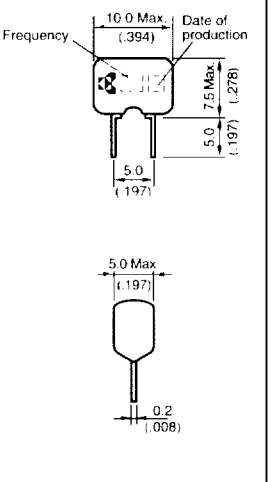
① Type: (Kyocera Bulk Resonator)
② Oscillation frequency (MHz)
③ Resonator type:
M = 6.01 to 12.00 MHz
MS = 2.00 to 3.57 MHz
MSA = 3.58 to 6.00 MHz
④ Packaging:
TR = tape and reel
□ = bulk

### SPECIFICATIONS (KBR- MS / KBR- MSA / KBR- M Series)

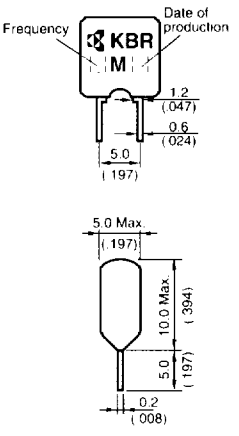
| Series | MS | MSA | M | M |
|---|---|---|---|---|
| Dimension | Fig. A | Fig. B | Fig. C | Fig. D |
| Oscillation Frequency | 2.00 to 3.57 MHz | 3.58 to 6.00 MHz | 6.01 to 6.99 MHz | 7.00 to 12.00 MHz |
| Frequency Tolerance | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| Resonant Impedance | 100Ω Max | 30Ω Max | 40Ω Max | 40Ω Max |
| Temperature Characteristic (-20 to +80°C) | ±0.3% | ±0.3% | ±0.5% | ±0.5% |
| Standard Frequency | 2.00, 2.50, 3.00 MHz | 3.58, 4.00, 4.19, 5.00, 6.00 MHz | | 8.00, 11.00, 12.00 MHz |
| DIMENSIONS | Fig. A | Fig. B | Fig. C | Fig. D |



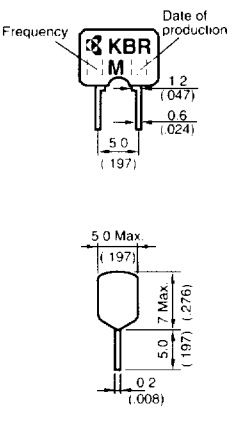

Unit: mm (inch)




Unit: mm (inch)




Unit: mm (inch)




Unit: mm (inch)

### KBR-3.58MSA - 200 series for Telephone D.T.M.F. Applications

| P/N | Frequency | Frequency Tolerance | Resonant Resistance | Temperature Stability (-20 to +80°C) | Dimensions |
|---|---|---|---|---|---|
| KBR-3.58MSA-201 | 3.5795MHz | +0 -0.25% | 30Ω Max | ±0.3% | Fig. B |
| KBR-3.58MSA-202 | | +0.15 -0.10% | | | |
| KBR-3.58MSA-203 | | +0.30 -0.05% | | | |
| KBR-3.58MSA-204 | | +0.45 +0.20% | | | |
| KBR-3.58MSA-205 | | +0.60 +0.35% | | | |
| KBR-3.58MSA-206 | | -0.30 -0.55% | | | |
| KBR-3.58MSA-207 | | -0.15 -0.40% | | | |

### TEST CIRCUIT