

Data Sheet

- ITEM : Ceramic Resonator
- PART NO : ICRT25S30M0X518CE

■ SCOPE

- ◆ This product specification is applied to the piezoelectric ceramic resonator used for time base oscillator in a microcomputer. Please contact us when using this product for any other application than described in the above.

■ FEATURES

- ◆ Oscillation circuits do not require external load capacitor
- ◆ The series is available in a wide frequency range
- ◆ The resonator are extremely small and a low profile

■ APPLICATION

- ◆ Clock oscillators for microprocessors
- ◆ Electronic control circuits for small electronic equipment such as hand held movie
- ◆ Audio-visual application (Camcorder, Remote Controller, etc.)
- ◆ Automotive electronics
- ◆ Dual Tone Multi Frequency (DTMF) generator for cordless telephone

■ PART NUMBER CODE

ICR T 25S 30M0 X 5 18 C E
 ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

① Product ID

| CODE | PRODUCT NAME |
|------|-------------------|
| ICR | Ceramic Resonator |

② Frequency/Capacitance

| CODE | Frequency / Capacitance |
|------|-----------------------------|
| A | MHz No Capacitance Built-in |
| T | MHz Built-in Capacitance |

③ Chip Size

| CODE | Structure (Size) |
|------|--------------------------------------|
| 20S | Small monolithic chip type (2.0×1.2) |
| 25S | Small monolithic chip type (2.5×2.0) |

④ Nominal Center Frequency

- Nominal Center Frequency Expressed by four-digit alphanumeric.
- The unit is in hertz (MHz).
- Decimal point is expressed by capital letter "M".

⑤ Vibration Mode

| CODE | Vibration Mode |
|------|--|
| X | Thickness Expander mode (3rd overtone) |
| T | Thickness Expander mode |
| G | Thickness Shear mode |

⑥ Vibration Mode

| CODE | Frequency Tolerance |
|------|---------------------|
| 5 | ± 0.5% |
| 3 | ± 0.3% |
| 1 | ± 0.1% |
| Q | ± 0.05% |

⑦ Capacitance

| CODE | Capacitance |
|------|-------------|
| 08 | 8pF |
| 11 | 11pF |
| 14 | 14pF |
| 18 | 18pF |
| 20 | 20pF |

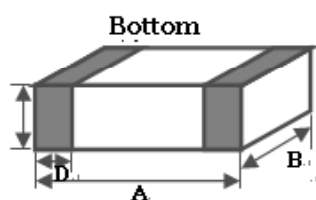
⑧ Individual Specification

| CODE | Individual Specification |
|------|--------------------------|
| C | Consumer electronics |
| A | Automotive electronics |

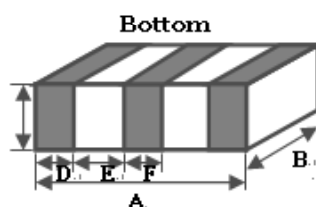
⑨ Packaging

| CODE | Type |
|------|--------------------|
| B | Bulk pack |
| R | Tape & Real pack |
| E | Embossed type pack |

■ Chip Size



2 -Terminals



3 -Terminals

| Symbol | DIMENSION | | | |
|--------|-----------|-----------|-----------|-----------|
| | 2012 SIZE | | 2520 SIZE | |
| | 2-Term. | 3-Term. | 2-Term. | 3-Term. |
| A | 2.00±0.20 | 2.00±0.20 | 2.50±0.20 | 2.50±0.20 |
| B | 1.20±0.20 | 1.20±0.20 | 2.00±0.20 | 2.00±0.20 |
| C | 0.65±0.10 | 0.65±0.10 | 0.8±0.10 | 0.8±0.10 |
| | 0.8±0.10 | 0.8±0.10 | 1.00±0.10 | 1.00±0.10 |
| D | 0.30±0.20 | 0.30±0.20 | 0.50±0.20 | 0.50±0.20 |
| E | | 0.55±0.20 | | 0.50±0.20 |
| F | | 0.30±0.20 | | 0.50±0.20 |

■ ELECTRICAL CHARACTERISTICS

| | ITEM | Specification |
|---|--|--|
| 1 | Nominal Oscillating Frequency | 30.00 MHz |
| | Initial Tolerance ^[1] | ± 0.50 % |
| 2 | Resonance Impedance | 60Ω (max) |
| 3 | Capacitance ^[2] | 18pF ±20 % |
| 4 | Frequency Shift by Temperature (-40℃ ~ +85℃) Operating Temperature Range | ± 0.1 % (from initial value) - 40℃ to + 85℃ |
| 5 | Aging (10 years) | ± 0.10 % |

[1] Terminal 1 and 3 are interchangeable

[2] Measurement value of terminal between 1(or 2) and 3

