Data Sheet

- ITEM : Ceramic Resonator
- PART NO : ICRT25S33M8X508CE

■ 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 33M8 X 5 08 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

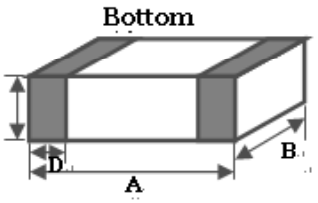
⑧ Individual Specification

CODE	Individual Specification
C	Consumer electronics
A	Autimotive electronics

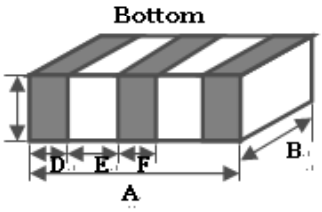
⑨ Packaging

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	33.86 MHz
	Initial Tolerance [1]	± 0.50 %
2	Resonance Impedance	60Ω (max)
3	Capacitance[2]	8pF ±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