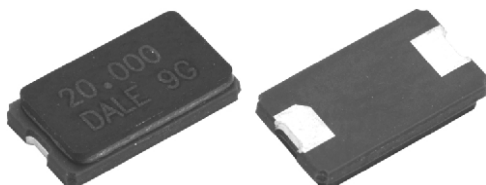


Surface Mount Crystal



The XT36C part is a miniature SMD crystal with 8.0 x 4.5 (mm) ceramic package and a height of 1.8 mm maximum. It is widely applied in notebook computer, PCMCIA, and communication equipment.

FEATURES

- Miniature size: 8.0 x 4.5 x 1.8 (mm)
- Wide frequency range
- Glass sealing
- Emboss tapping
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT

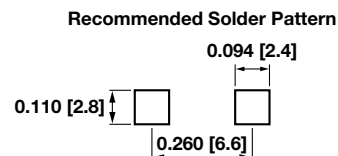
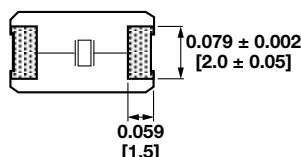
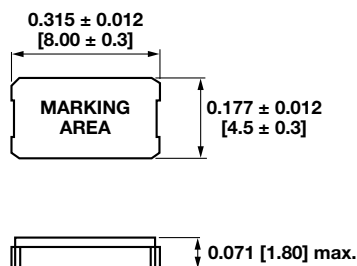
STANDARD ELECTRICAL SPECIFICATIONS

| PARAMETER | SYMBOL | CONDITION | UNIT | MIN. | TYP. | MAX. |
|-----------------------------|-------------------|---------------------|------|--------|------|--------|
| Frequency range | F _O | | MHz | 10.000 | - | 70.000 |
| Frequency tolerance | ΔF/F _O | at 25 °C | ppm | - | ± 50 | - |
| Temperature stability | T _C | ref. to 25 °C | ppm | - | ± 50 | - |
| Operating temperature range | T _{OPR} | | °C | - 10 | - | + 60 |
| Storage temperature range | T _{STG} | | °C | - 55 | - | + 125 |
| Shunt capacitance | C ₀ | | pF | - | - | 7 |
| Load capacitance | C _L | customer specified | pF | 10 | - | series |
| Insulation resistance | I _R | 100 V _{DC} | MΩ | 500 | - | - |
| Drive level | D _L | | μW | - | 10 | 500 |
| Aging | Fa | at 25 °C, per year | ppm | - 5 | - | + 5 |

EQUIVALENT SERIES RESISTANCE (ESR) AND MODE OF VIBRATION (MODE)

| FREQUENCY RANGE (MHz) | MAX. ESR (Ω) | MODE | FREQUENCY RANGE (MHz) | MAX. ESR (Ω) | MODE |
|-----------------------|--------------|-------------|-----------------------|--------------|--------------------------|
| 10.000 to 10.999 | 110 | fundamental | 20.000 to 31.999 | 25 | fundamental |
| 11.000 to 14.099 | 50 | fundamental | 32.000 to 47.999 | 110 | 3 rd overtone |
| 14.100 to 17.999 | 45 | fundamental | 48.000 to 70.000 | 100 | 3 rd overtone |
| 18.000 to 19.999 | 30 | fundamental | | | |

DIMENSIONS in inches [millimeters]



**ORDERING INFORMATION**

| XT36C | -20 | 24M | e4 |
|-------|--|---------------|----------------------------------|
| MODEL | LOAD blank = series -12 = 12 pF -16 = 16 pF -20 = 20 pF -32 = 32 pF | FREQUENCY/MHz | JEDEC LEAD (Pb)-FREE STANDARD |

GLOBAL PART NUMBER

| | | | | | | | | | |
|-------|---|---|---|------|---|-----------------|-----------|---|---|
| X | T | 3 | 6 | 2 | 0 | H | 2 | 4 | M |
| MODEL | | | | LOAD | | PACKAGE CODE | FREQUENCY | | |

GLOBAL PART NUMBERING

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X | T | 9 | S | 2 | 0 | A | N | A | 4 | 0 | M |
| MODEL NUMBER XT9S = XT49S XT9M = XT49M | | | | LOAD CAPACITANCE 18 = 18 pF 20 = 20 pF NL = series to be specified by customer | | PACKAGE CODE Tape and reel G = RF5 (XT9S) H = RF7 (XT9M) Bulk A = B04 (all models) | | OPTIONS NA = no additional options RR = extended temperature of - 40 °C to + 85 °C Contact factory for all other options | | FREQUENCY 4M = 4 MHz 40M = 40 MHz 100M = 100 MHz 12M288 = 12.288 MHz M is used as decimal place holder in frequency | |
| Example: XT49S-20 40M | | | | | | | | | | | |
| X | T | 3 | 6 | 2 | 0 | H | 1 | 2 | M | | |
| MODEL NUMBER XT46 = XT46C XT36 = XT36C | | | | LOAD CAPACITANCE 18 = 18 pF 20 = 20 pF NL = series to be specified by customer | | PACKAGE CODE Tape and reel H = RF7 | | FREQUENCY 4M = 4 MHz 40M = 40 MHz 100M = 100 MHz 12M288 = 12.288 MHz M is used as decimal place holder in frequency | | | |
| Example: XT36C-20 12M | | | | | | | | | | | |



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