



actual size

SMD Quartz Crystal · JXS32

4 Pad Version · 3.2 x 2.5 mm

- ± 10 ppm type available
- EMI shielding possible by grounded lid
- reflow soldering temperature: 260 °C max.
- ceramic / metal package



General Data

| type | JXS32 | |
|------------------------------|----------------------|---------------------------------|
| frequency range | 12.0 ~ 50.0 MHz | (fund. AT-cut) |
| frequency tolerance at 25 °C | ± 10 ppm / ± 30 ppm | |
| load capacitance C_L | 12 pF standard | (option: 8 pF ~ 30 pF / series) |
| shunt capacitance C_0 | < 5 pF | |
| storage temperature | -40 °C ~ +90 °C | |
| drive level max. | 100 µW | |
| aging | < ± 3 ppm first year | |

ESR (series resistance Rs)

| frequency in MHz | vibration mode | ESR max. in Ω | ESR typ. in Ω |
|------------------|----------------|---------------|---------------|
| 12.0 ~ 12.999 | fund. - AT | 100 | 50 |
| 13.0 ~ 15.999 | fund. - AT | 100 | 40 |
| 16.0 ~ 18.999 | fund. - AT | 80 | 40 |
| 19.0 ~ 21.999 | fund. - AT | 70 | 30 |
| 22.0 ~ 29.999 | fund. - AT | 70 | 25 |
| 30.0 ~ 50.000 | fund. - AT | 50 | 20 |

Frequency Stability vs. Temperature

| | | ± 10 ppm | ± 15 ppm | ± 20 ppm | ± 30 ppm | ± 50 ppm |
|-----------------|------------|----------|----------|----------|----------|----------|
| -20 °C ~ +70 °C | STD. | ● | ○ | ○ | ● | ○ |
| -40 °C ~ +85 °C | T1 | | ◇ | ○ | ○ | ● |
| -30 °C ~ +85 °C | T(-30/+85) | | □ | | | |

● standard
 ○ available
 □ for frequencies < 20.0 MHz
 ◇ for frequencies > 20.0 MHz, ask if available < 20.0 MHz

Marking

frequency with load capacitance code
company code / date code / internal code

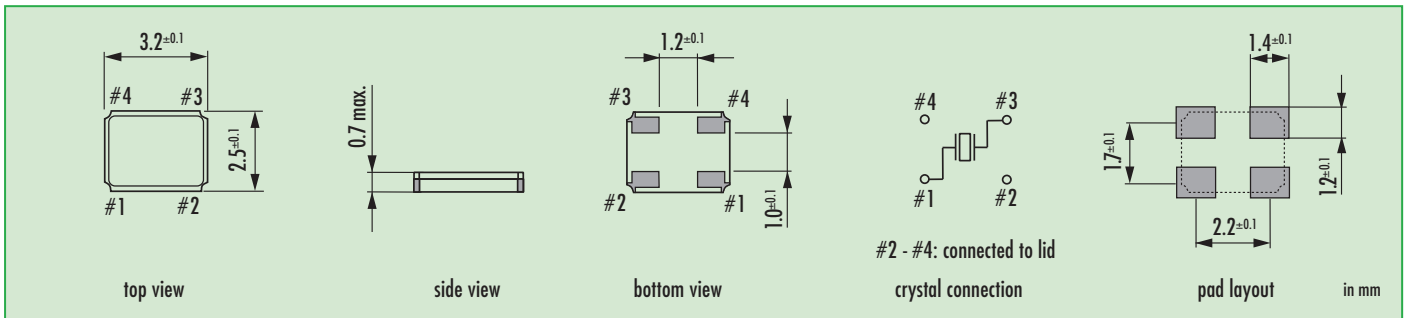
date code: year/month

example: 0A = 2010 January

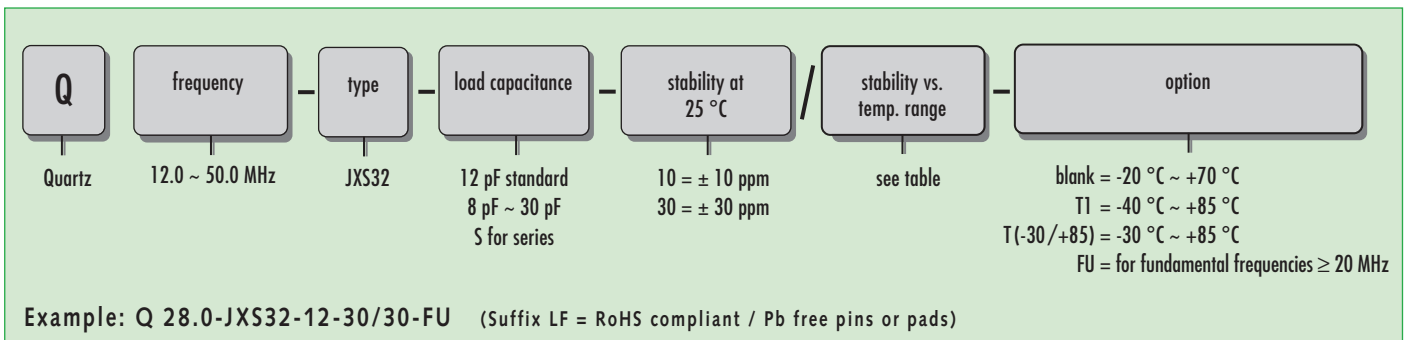
| Jan. | Febr. | Mar. | Apr. | May | June |
|------|-------|------|------|-----|------|
| A | B | C | D | E | F |

| July | Aug. | Sept. | Oct. | Nov. | Dec. |
|------|------|-------|------|------|------|
| G | H | J | K | L | M |

Dimensions

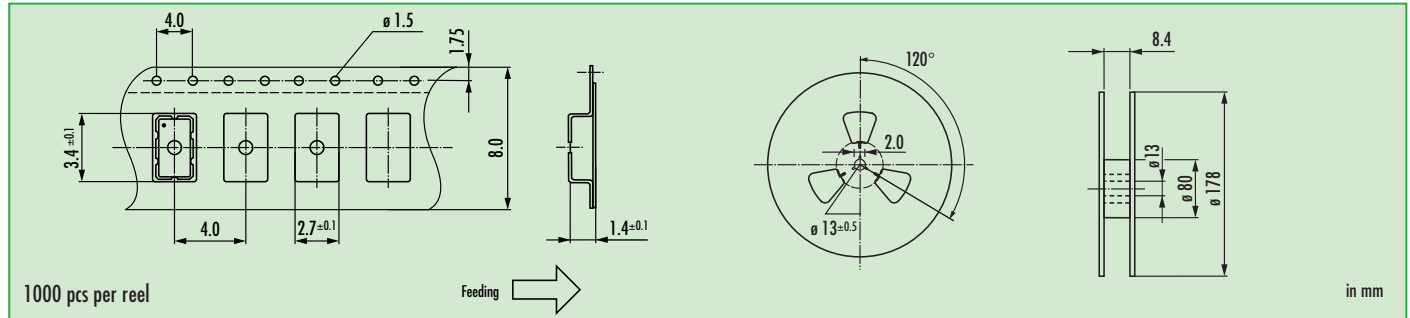


Order Information

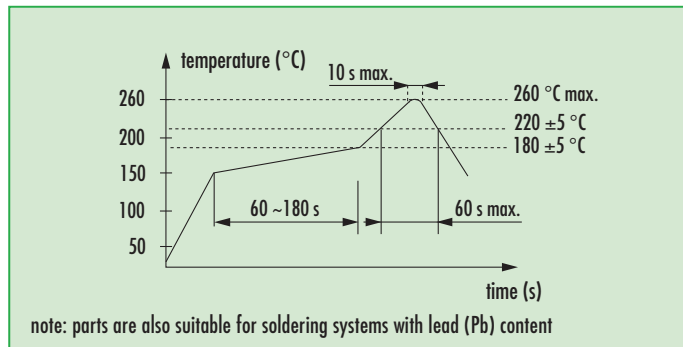


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Taping Specification



Reflow Soldering Profile



Load Capacitance Codes

| | | | |
|----------|----------|----------|-----------|
| 8 pF: k | 14 pF: x | 22 pF: g | series: s |
| 9 pF: n | 15 pF: j | 24 pF: d | T: 3rd OT |
| 10 pF: h | 16 pF: b | 25 pF: r | |
| 11 pF: l | 17 pF: t | 27 pF: w | |
| 12 pF: a | 18 pF: f | 30 pF: . | |
| 13 pF: v | 20 pF: c | | |

example 20.0 MHz / 12 pF: 20a00