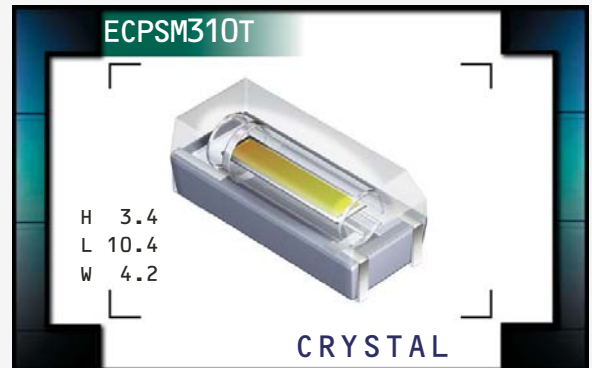


ECPSM310T Series

- 32.768kHz watch crystal
- Miniature four pad surface mount package
- ± 20 ppm frequency tolerance
- 6.0pF or 12.5pF load capacitance available
- Tape and reel available



NOTES

ELECTRICAL SPECIFICATIONS

| | |
|------------------------------------|---|
| Frequency | 32.768kHz |
| Frequency Tolerance (at 25°C) | ± 20 ppm |
| Frequency Stability | -0.042ppm / $(\Delta^\circ\text{C})^2$ Maximum, Parabolic; Turn Over Temperature at 25°C $\pm 5^\circ\text{C}$ |
| Operating Temperature Range | -40°C to 85°C |
| Aging (at 25°C) | ± 3 ppm / year Maximum |
| Storage Temperature Range | -55°C to 125°C |
| Shunt Capacitance | 0.85pF Typical, 2pF Maximum |
| Motional Capacitance | 2.0fF Typical |
| Equivalent Series Resistance | 60,000 Ohms Maximum |
| Insulation Resistance | 500 Megaohms Minimum at 100V _{DC} |
| Drive Level | 1 μ Watt Maximum |
| Load Capacitance (C _L) | 12.5pF or 6pF |

PART NUMBERING GUIDE

ECPSM310T1 - 32.768K TR

LOAD CAPACITANCE

Blank=12.5pF

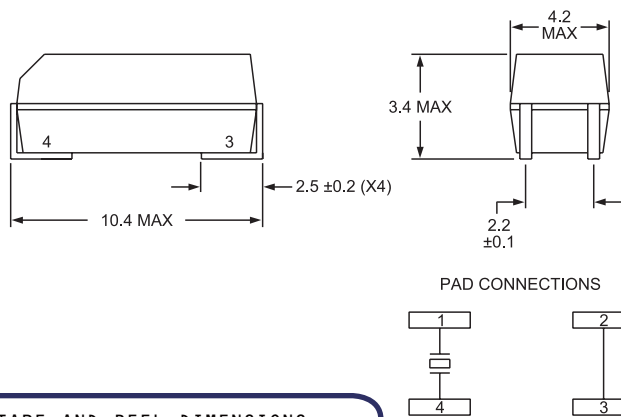
1=6pF

PACKAGE OPTIONS

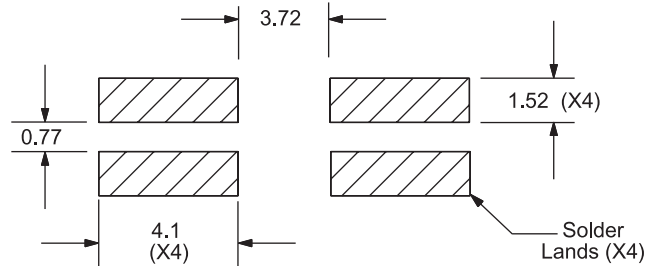
Blank=Bulk, TR=Tape and Reel

NOTES

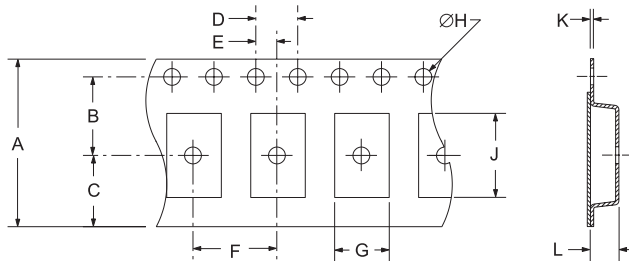
MECHANICAL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS



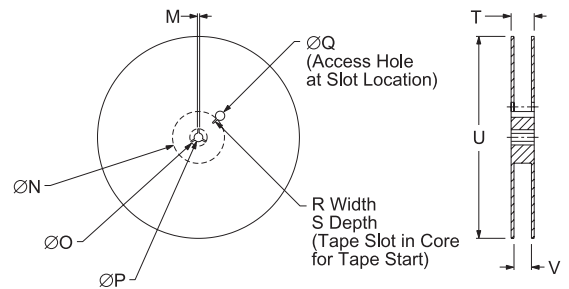
SUGGESTED SOLDER PAD LAYOUTS ALL DIMENSIONS IN MILLIMETERS



TAPE AND REEL DIMENSIONS ALL DIMENSIONS IN MILLIMETERS

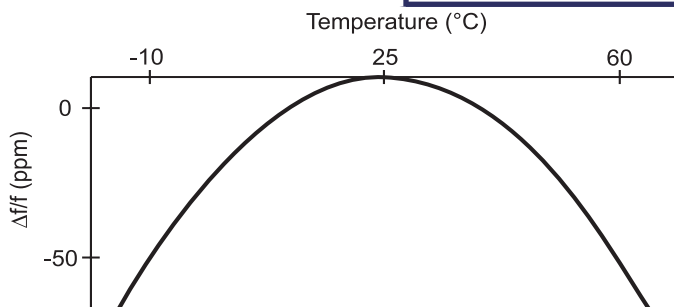


| TAPE | A | B | C | D | E |
|------|---------|------------|---------|--------|--------|
| | 16±.3 | 7.5±.1 | 6.75±.1 | 4±.2 | 2±.1 |
| F | G | H | J | K | L |
| 8±.2 | 4.35±.1 | 1.5+-.2-.1 | 10.7±.2 | .5±.05 | 3.7±.2 |



| REEL | M | N | O | P | Q |
|---------|---------|----------|----------|----------|----------|
| | 1.5 MIN | 50 MIN | 20.2 MIN | 13±.2 | 40 MIN |
| R | S | T | U | V | QTY/REEL |
| 2.5 MIN | 10 MIN | 22.4 MAX | 360 MAX | 16.4+2-0 | 2,000 |

PARABOLIC TEMPERATURE CURVE



MARKING SPECIFICATIONS

Line 1: 32K XXXX
 Lot Identifier (4 or 5 Characters)
 Frequency Code
 32K or C2K

MANUFACTURER
ECLIPTEK CORP.

CATEGORY
CRYSTAL

SERIES
ECPSM310T

PACKAGE
PLASTIC

CLASS
CR15

REV. DATE
05/05