

RTV-2016AF3NY-S-19.200-TR Datashee



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DiGi Electronics Part Number RTV-2016AF3NY-S-19.200-TR-DG

Manufacturer Raltron Electronics

Manufacturer Product Number RTV-2016AF3NY-S-19.200-TR

Description XTAL OSC VCTCXO 19.2MHZ 1.8V CLP

Detailed Description 19.2 MHz VCTCXO Clipped Sine Wave Oscillator 1.8

V 4-SMD, No Lead



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DiGi is a global authorized distributor of electronic components.



Purchase and inquiry

| Manufacturer Product Number: | Manufacturer: |
|---------------------------------------|----------------------------|
| RTV-2016AF3NY-S-19.200-TR | Raltron Electronics |
| Series: | Product Status: |
| RTV-2016 | Active |
| Base Resonator: | Туре: |
| Crystal | VCTCXO |
| Frequency: | Function: |
| 19.2 MHz | |
| Output: | Voltage - Supply: |
| Clipped Sine Wave | 1.8V |
| Frequency Stability: | Absolute Pull Range (APR): |
| ±500ppb | |
| Operating Temperature: | Spread Spectrum Bandwidth: |
| -30°C ~ 85°C | |
| Current - Supply (Max): | Ratings: |
| 2mA | |
| Mounting Type: | Package / Case: |
| Surface Mount | 4-SMD, No Lead |
| Size / Dimension: | Height - Seated (Max): |
| 0.079" L x 0.063" W (2.00mm x 1.60mm) | 0.037" (0.95mm) |
| Current - Supply (Disable) (Max): | |
| | |

Environmental & Export classification

8542.39.0001

| RoHS Status: | Moisture Sensitivity Level (MSL): |
|------------------|-----------------------------------|
| ROHS3 Compliant | 1 (Unlimited) |
| REACH Status: | ECCN: |
| REACH Unaffected | EAR99 |
| HTSUS: | |



TCXO

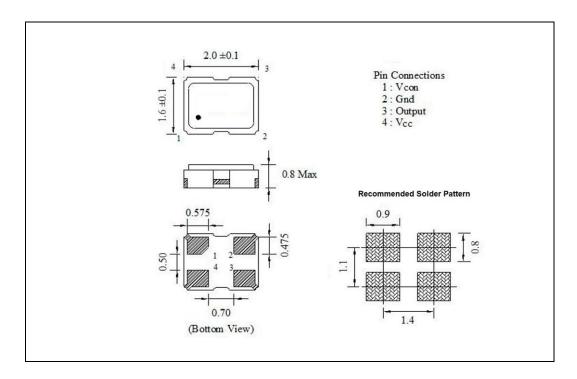
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■ ELECTRICAL SPECIFICATION

| PARAMETER | SYMBOL | CONDITIONS | VALUE | UNIT |
|------------------------------------|------------------|---|-----------|-----------|
| Nominal Frequency | fo | Vcc ±5% | 19.200 | MHz |
| Supply voltage, nom. | V _{cc} | Vcc ±5% | 1.7-3.46 | VDC |
| Supply current, max | Is | Vcc ±5% | 1.5 | mA |
| Operating temperature | Та | | -30 ~ +85 | °C |
| Storage temperature | T(stg) | Absolute max | -40 ~ +90 | °C |
| Frequency Stability | | | | |
| vs. Temperature, Max | ∆f/fo(Ta) | Reference to +25°±2°C (-30 TO 85°C) | ±0.5 | ppm |
| vs. Supply Voltage | $\Delta f/f_{V}$ | Vcc ±5% | ±0.2 | ppm |
| vs. Load | $\Delta f/f_L$ | Load ±10% | ±0.1 | ppm |
| vs. Aging Max | ∆f/fo(year) | Per Year at +25°C ± 2°C | ±1.0 | ppm |
| Initial Frequency Calibration, Max | f _C | Measured at 25°C, Reference to fo | ±2.0 | ppm |
| Output Level, Clipped Sine Wave | 1 | 10K Ohms // 10 pF ±10% | 0.2 | V_{P-P} |
| Voltage Control Range | Vc | $V_C = 0.3Vdc$ to 1.5Vdc | ±8 to ±15 | ppm |
| Harmonics | | | -5 | dBc |
| Start up time, Max | t _s | V _{OUT} ≥ 90% V _{P-P} | 2.0 | ms |

■ MECHANICAL SPECIFICATION



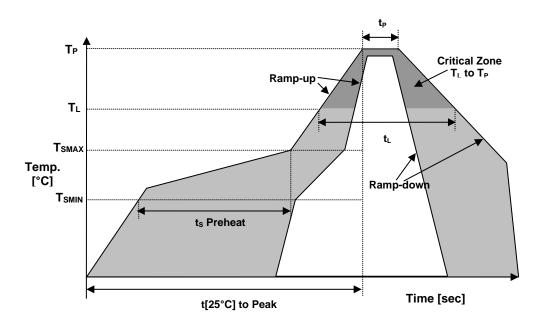


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REFLOW PROFILE



| | Reflow profile | |
|--|-------------------|--------------|
| Temperature Min Preheat | T _{SMIN} | 150°C |
| Temperature Max Preheat | T _{SMAX} | 200°C |
| Time (T _{SMIN} to T _{SMAX}) | t _S | 60-180 sec. |
| Temperature | TL | 217°C |
| Peak Temperature | T_P | 260°C |
| Ramp-up rate | R _{UP} | 3°C/sec max. |
| Ramp-down rate | R _{DOWN} | 6°C/sec max. |
| Time within 5°C of Peak Temperature | t _P | 10 sec. |
| Time t[25°C] to Peak Temperature | t[25°C] to Peak | 480 sec. |
| Time | t _L | 60-150 sec. |

ENVIRONMENTAL

| PARAMETER | VALUE |
|----------------------------|-----------|
| MOISTURE SENSITIVITY LEVEL | 1 |
| REACH-SVHC | Compliant |
| RoHS | Compliant |
| TERMINATION FINISH | Au |





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MARKING

Rx19.2 •AF8yw

x – Internal Production ID code

y – Year code

w - Week code

| YEAR CODE | | |
|-----------|------|--|
| Year | Code | |
| 2019 | 9 | |
| 2020 | 0 | |
| 2021 | 1 | |
| 2022 | 2 | |
| 2023 | 3 | |
| 2024 | 4 | |
| 2025 | 5 | |
| 2026 | 6 | |
| 2027 | 7 | |
| 2029 | 8 | |
| 2029 | 9 | |

| ALPHA WEEK CODE TABLE | | | | | |
|-----------------------|------|------|------|------|------|
| Week | Code | Week | Code | Week | Code |
| 1 | а | 19 | S | 37 | K |
| 2 | b | 20 | t | 38 | L |
| 3 | С | 21 | u | 39 | М |
| 4 | d | 22 | ٧ | 40 | N |
| 5 | е | 23 | W | 41 | 0 |
| 6 | f | 24 | Х | 42 | Р |
| 7 | g | 25 | У | 43 | Q |
| 8 | h | 26 | Z | 44 | R |
| 9 | i | 27 | Α | 45 | S |
| 10 | j | 28 | В | 46 | Т |
| 11 | k | 29 | С | 47 | U |
| 12 | I | 30 | D | 48 | V |
| 13 | m | 31 | E | 49 | W |
| 14 | n | 32 | F | 50 | X |
| 15 | 0 | 33 | G | 51 | Υ |
| 16 | р | 34 | Н | 52 | Z |
| 17 | q | 35 | I | | |
| 18 | r | 36 | J | | |

APPROVALS

| RALTRON | | |
|--------------|--------------------------------------|--|
| DRAWN BY: | CP, November 04, 2020 | |
| APPROVED BY: | JI, November 04, 2020 | |
| REVISION: | A, Initial Release | |
| | B, Updated mechanical specifications | |
| | KJ 2/10/21 | |

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