Specification of Quartz Crystal Controlled Oscillators



1 **NDK Part Number** NT3225SA-26M-DJA3006A

2 **NDK Specification Number** DJA3006A 3 **Type** NT3225SA

4 Rating

4.1 Nominal Frequency (f_{nom}) 26 MHz (2 digits marking)

4.2 Supply Voltage +2.75 V +0.05/-0.15 V DC (-Earth)

Current Consumption 4.3 Max. 2.0 mA

0.8 to 1.3 V_{p-p} Clipped sine wave (DC-Coupling) 4.4 Output Voltage

4.5 Operable Temperature Range -10 to +85 °C 4.6 Storage Temperature Range -40 to +85 °C 4.7 Load impedance 10 kΩ//3.5 pF

4.8 DC-cut Capacitor DC-cut capacitor of output is not put in TCXO.

Please add DC-cut capacitor (1000 pF) in output line.

5 **Electrical specification**

 $(V_{cont} = +1.2 V DC)$

Frequency Stability 5.1

5.1.1 Frequency / Temperature Characteristics Max. \pm -2.5 ppm / -10 to \pm 85 °C (Based on frequency at \pm 25 \pm -2 °C)

5.1.2 Frequency / Voltage Coefficient Max. +/-0.2 ppm / +2.7 V +/-0.1 V 5.1.3 Frequency / Load Coefficient

Max. +/-0.2 ppm / $(10 k\Omega // 3.5 pF)$ +/-10%

Max. +/-1.0 ppm

(at +25 +/-2 °C, before reflow soldering, based on nominal frequency)

Max. +/-2.0 ppm

(at +25 +/-2 °C, after reflow soldering, based on nominal frequency)

5.1.5 Long-term Frequency Stability Max. +/-1.0 ppm / year Max. +/-5.0 ppm / 10 years

5.2 **External Adjustment**

Control Voltage (V_{cont})

5.2.2 Frequency control range based on

frequency at V_{cont} = +1.2 V DC

Frequency Control Sensitivity

Frequency Tolerance at Control Voltage

5.2.3 5.2.4 Frequency Change Polarity

5.2.5 Input Impedance

5.2.6 Linearity of frequency modulation deviation

Start-up Time 5.3

5.4 Stabilization Time

5.5 Harmonic Distortion

5.6 Phase Noise +1.2 V +/-1.0 V DC

+/-9.0 to +/-16.0 ppm

Max. 16.0 ppm/V

Positive Min. 500 kΩ

Max. +/-20 %

Max. 5.0 ms (More than 90 % of final output voltage)

Max. 5.0 ms (Less than +/-0.5 ppm of steady state frequency)

Max. -10 dBc (3rd) Max. -20 dBc (other)

(Unit: mm)

Max. -110 dBc/Hz (@ 100 Hz offset) Max. -130 dBc/Hz (@ 1 kHz offset)

6 **Dimension**









