



### 3.6. Frequency Reference Specifications

| SPECIFICATION OF<br>VCTCXO TTS10V         |                                                                          | 13-11802              |
|-------------------------------------------|--------------------------------------------------------------------------|-----------------------|
| 1. DESCRIPTION                            | This specification is applied for the VCTCXO.                            |                       |
| 2. MOUNTING TYPE                          | S.M.D (for reflow soldering)                                             |                       |
| 3. ELECTRICAL CHARACTERISTICS             |                                                                          |                       |
| 3. 1 Nominal Frequency                    | 12.600000MHz                                                             |                       |
| 3. 2 Supply Voltage                       | DC+2.75V $\pm$ 0.15V                                                     |                       |
| 3. 3 Input Current                        | 1.5mA max.                                                               |                       |
| 3. 4 Output Voltage                       | 0.8Vp-p min. / Clipped Sinewave (DC cut)                                 |                       |
| 3. 5 Load                                 | (10K $\Omega$ //10pF) $\pm$ 10%                                          |                       |
| 3. 6 Operating Temperature Range          | -30 $^{\circ}$ C ~ +60 $^{\circ}$ C                                      |                       |
| 3. 7 Storage Temperature Range            | -40 $^{\circ}$ C ~ +85 $^{\circ}$ C                                      |                       |
| 3. 8 Frequency Stability                  |                                                                          |                       |
| Frequency - Operating Temp. Range         | $\pm 2.5 \times 10^{-6}$ max. -30 $^{\circ}$ C ~ +60 $^{\circ}$ C        |                       |
| Frequency - Voltage Coefficient           | $\pm 0.3 \times 10^{-6}$ max. DC+2.75V $\pm$ 0.15V                       |                       |
| Frequency - Load Coefficient              | $\pm 0.2 \times 10^{-6}$ max. (10K $\Omega$ //10pF) $\pm$ 10%            |                       |
| Frequency - Aging                         | $\pm 0.5 \times 10^{-6}$ max. / year                                     |                       |
| 3. 9 Initial Frequency Tolerance          | $\pm 2.0 \times 10^{-6}$ max. / before reflow at 25 $\pm$ 2 $^{\circ}$ C |                       |
| Reflow soldering(2times)                  | $\pm 1.0 \times 10^{-6}$ max. / after reflow<br>60 mins stabilization    |                       |
| 3.10 Voltage Controlled Range             | $\pm 9.0 \sim \pm 15.0 \times 10^{-6}$ V <sub>c</sub> =1.4 $\pm$ 1.0V    |                       |
| 4. OUTLINE DRAWING AND PIN CONNECTIONS    | Drawing Number 13-31039                                                  |                       |
| Aug. 23, 1999 Designer : <i>T. Suzuki</i> |                                                                          | TOKYO DENPA CO., LTD. |