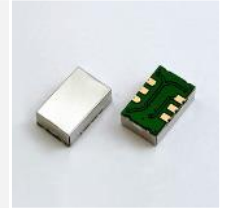


**TCXO/VCTCXO FR4 BASE SMD (14.3 x 8.7 x 5.5mm)**
**FEATURES:**

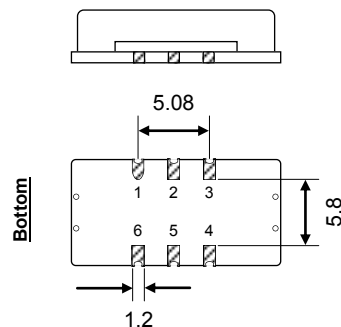
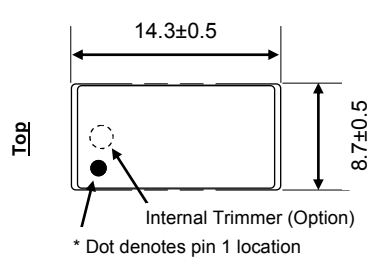
- WIDE FREQUENCY RANGES
- TIGHT STABILITY AVAILABLE
- STANDARD PACKAGE


**■ SPECIFICATION**

| PARAMETER                     |                            |                         | MIN.                                  | TYP. | MAX.                  | UNIT             | NOTE                            |  |
|-------------------------------|----------------------------|-------------------------|---------------------------------------|------|-----------------------|------------------|---------------------------------|--|
| FREQUENCY RANGE               |                            |                         | CMOS / TTL                            | 1K   |                       | 800M             | Hz                              |  |
|                               |                            |                         | LVDS / PECL                           | 0.75 |                       | 800              | MHz                             |  |
|                               |                            |                         | CSW / SW                              | 10   |                       | 50               | MHz                             |  |
| FREQ. STABIL-ITY              | vs. TEMPERATURE            |                         | ±0.5                                  |      | ±5.0                  | ppm              | See P/N guide for other options |  |
|                               | vs. LOAD ± 10%             | CMOS / TTL              |                                       |      | ±0.2                  | ppm              |                                 |  |
|                               |                            | LVDS / PECL             |                                       |      | ±0.2                  | ppm              |                                 |  |
|                               |                            | CSW / SW                |                                       |      | ±0.2                  | ppm              |                                 |  |
|                               | vs. SUPPLY VOLTAGE ± 5%    | CMOS / TTL              |                                       |      | ±0.3                  | ppm              |                                 |  |
|                               |                            | LVDS / PECL             |                                       |      | ±0.3                  | ppm              |                                 |  |
|                               |                            | CSW / SW                |                                       |      | ±0.2                  | ppm              |                                 |  |
| vs. AGING                     |                            |                         |                                       |      | ±1.0                  | ppm/year         | @ 25°C                          |  |
| OPERATING TEMPERATURE RANGE   |                            |                         | -40                                   |      | 85                    | °C               | See P/N guide for other options |  |
| STROAGE TEMPERATURE RANGE     |                            |                         | -55                                   |      | 125                   | °C               |                                 |  |
| SUPPLY VOLTAGE ±5%            |                            |                         | 3.3                                   |      | 5.0                   | V                | See P/N guide for other options |  |
| SUPPLY CURRENT                |                            |                         | CMOS / TTL                            |      |                       | 50               | mA                              |  |
|                               |                            |                         | LVDS / PECL                           |      |                       | 100              | mA                              |  |
|                               |                            |                         | CSW                                   |      |                       | 10               | mA                              |  |
|                               |                            |                         | SW                                    |      |                       | 30               | mA                              |  |
| OUTPUT                        | LOGIC FAMILY               |                         | CMOS / TTL / LVDS / LVPECL / CSW / SW |      |                       |                  |                                 |  |
|                               | LOAD                       | CMOS / TTL              | 15pF / 10TTL                          |      |                       |                  |                                 |  |
|                               |                            | CSW / SW                | 10kΩ//10pF / 50Ω                      |      |                       |                  |                                 |  |
|                               | LEVEL                      | CMOS (V <sub>OH</sub> ) | 0.9 x V <sub>DD</sub>                 |      |                       | V                |                                 |  |
|                               |                            | CMOS (V <sub>OL</sub> ) |                                       |      | 0.1 x V <sub>DD</sub> | V                |                                 |  |
|                               |                            | TTL (V <sub>OH</sub> )  | 2.4                                   |      |                       | V                |                                 |  |
|                               |                            | TTL (V <sub>OL</sub> )  |                                       |      | 0.4                   | V                |                                 |  |
|                               |                            | LVDS (V <sub>OH</sub> ) |                                       | 1.43 |                       | V                |                                 |  |
|                               |                            | LVDS (V <sub>OL</sub> ) |                                       | 1.10 |                       | V                |                                 |  |
|                               |                            | PECL (V <sub>OH</sub> ) | V <sub>DD</sub> -1.025                |      |                       | V                |                                 |  |
|                               |                            | PECL (V <sub>OL</sub> ) |                                       |      | V <sub>DD</sub> -1.62 | V                |                                 |  |
|                               |                            | CSW (3.3V)              | 0.8                                   |      |                       | V <sub>P-P</sub> |                                 |  |
|                               |                            | CSW (5.0V)              | 1.0                                   |      |                       | V <sub>P-P</sub> |                                 |  |
|                               |                            | SW (3.3V)               |                                       | 0    |                       | dBm              |                                 |  |
|                               |                            | SW (5.0V)               |                                       | 10   |                       | dBm              |                                 |  |
|                               | DIFFERENTIAL OUTPUT        |                         |                                       | 330  |                       | mV               | LVDS only                       |  |
|                               | OFFSET VOLTAGE             |                         |                                       | 1.2  |                       | V                | LVDS only                       |  |
|                               | SYMMETRY (DUTY CYCLE)      | CMOS / TTL              | 40                                    |      | 60                    | %                |                                 |  |
|                               |                            | LVDS / PECL             | 45                                    |      | 55                    | %                |                                 |  |
|                               | RISE AND FALL TIME (Tr/Tf) | CMOS / TTL              |                                       |      | 10                    | nS               |                                 |  |
|                               |                            | LVDS / PECL             |                                       |      | 1.0                   | nS               |                                 |  |
| FREQUENCY DEVIATION           |                            |                         | ±5                                    |      | ±10                   | ppm              |                                 |  |
| CONTROL VOLTAGE               |                            |                         | 3.3V                                  | 0.15 | 3.15                  | V                |                                 |  |
|                               |                            |                         | 5.0V                                  | 0.5  | 4.5                   | V                |                                 |  |
| FREQUENCY ADJUSTMENT (OPTION) |                            |                         | ±3.0                                  |      |                       | ppm              | By internal trimmer             |  |
| PHASE NOISE                   |                            |                         | 10Hz                                  |      | -80                   | dBc/Hz           | @ 20.0MHz offset                |  |
|                               |                            |                         | 100Hz                                 |      | -120                  | dBc/Hz           |                                 |  |
|                               |                            |                         | 1kHz                                  |      | -135                  | dBc/Hz           |                                 |  |
|                               |                            |                         | 10kHz                                 |      | -140                  | dBc/Hz           |                                 |  |
|                               |                            |                         | 100kHz                                |      | -145                  | dBc/Hz           |                                 |  |

Transko Electronics, Inc reserves the right to make changes to the product (s), service (s), and specification (s) described herein without notice. See "Terms of Sale" for details on our website.

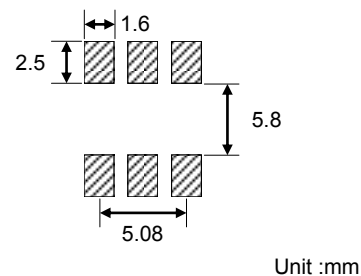
## ■ PACKAGE DIMENSIONS



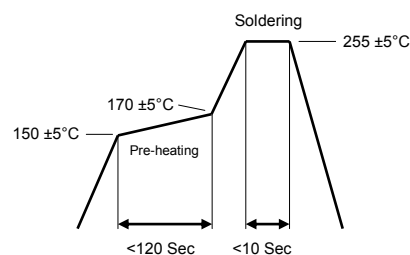
Unit : mm

| Pin Connections |                       |              |
|-----------------|-----------------------|--------------|
|                 | CMOS / TTL / CSW / SW | LVDS / PECL  |
| 1               | NC or VC              | En/Dis or VC |
| 2               | NC                    |              |
| 3               | GND                   |              |
| 4               | Output                |              |
| 5               | NC                    | C. Output    |
| 6               | V <sub>DD</sub>       |              |

## ■ SOLDER PATTERN

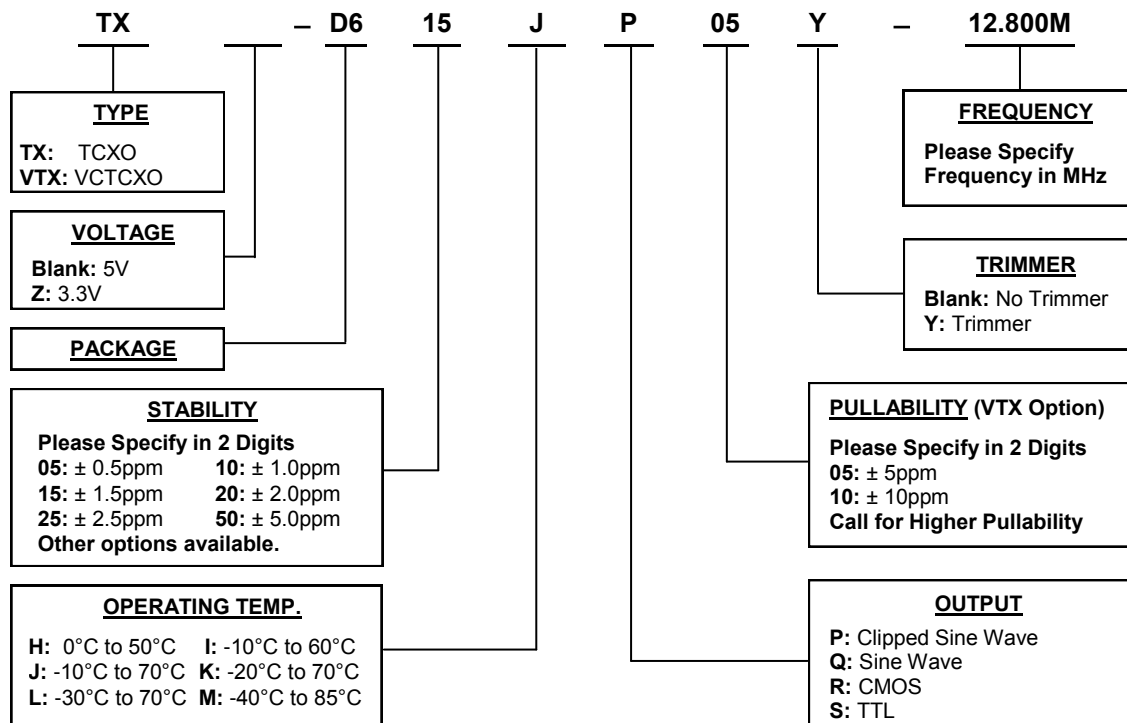


## ■ REFLOW PROFILE



Note: Consult factory for detail

## ■ PART NUMBERING GUIDE



Transko Electronics, Inc reserves the right to make changes to the product (s), service (s), and specification (s) described herein without notice. See "Terms of Sale" for details on our website.