

# SMD VCXO 7.0x5.0mm 6 pad 3.3 - 5.0 VDC MHz

## SERIES "SX0"

### FEATURES

- + High reliability for low cost
- + Frequency stability to  $\pm 20$ ppm
- + Available in 5.0 and 3.3 Volt
- + Extended temperature range  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$
- + Applications: fibre channel, telecom, set-top box, broadband, etc.



PB FREE / ROHS COMPLIANT

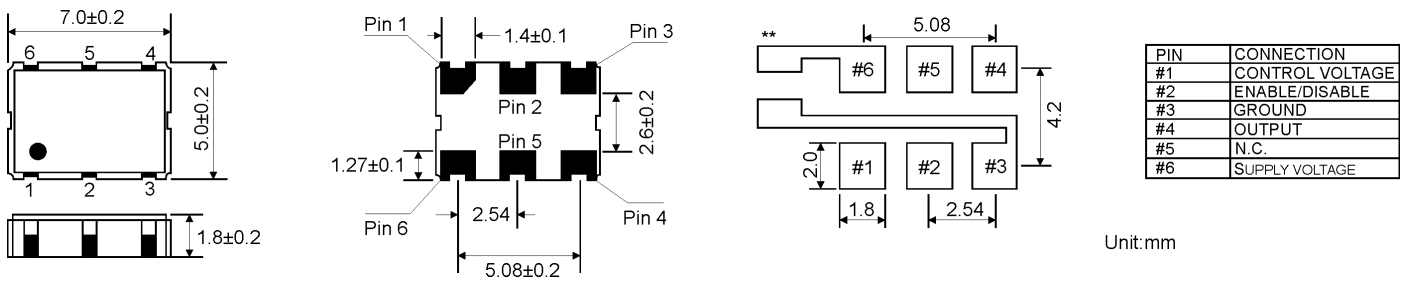
### GENERAL DATA

| PARAMETERS                  |                    | PRODUCT FEATURES AND CONDITIONS                                       |              |
|-----------------------------|--------------------|---|--------------|
| SMD-OSCILLATOR SERIES       |                    | SMD-VCX06   |              |
| PACKAGE                     |                    | Ceramic package 7.0 x 5.0 x 1.8 mm <sup>3</sup>                       |              |
| FREQUENCY RANGE             |                    | 1.0 ~ 170.0 MHz   |              |
| FREQUENCY STABILITY         |                    | $\pm 20$ ppm / $\pm 25$ ppm / $\pm 50$ ppm                            |              |
| OPERATING TEMPERATURE RANGE |                    | $-10/+70^{\circ}\text{C}$ ~ $-40/+85^{\circ}\text{C}$                 |              |
| STORAGE TEMPERATURE RANGE   |                    | $-55/+125^{\circ}\text{C}$  |              |
| INPUT                       | VOLTAGE            | $+3.3\text{VDC} \pm 5\%$ / $+5.0\text{VDC} \pm 5\%$                   |              |
|                             | CURRENT            | 30 mA max.  |              |
| OUTPUT                      | SYMMETRY           | STANDARD  | 40/60%       |
|                             |                    | OPTION  | 45/55%       |
|                             | SIGNAL             | CMOS  |              |
|                             | RISE AND FALL TIME | 5 ns max.   |              |
|                             | "0" LEVEL          | CMOS/HCMOS  | 10% VDD max. |
|                             | "1" LEVEL          |   | 90% VDD min. |
| LOAD                        | 15 pF ~ 30 pF      |   |              |
| START-UP TIME               |                    | 10 mS max.  |              |
| INPUT IMPEDANCE             |                    | 10 k $\Omega$ min.  |              |
| MODULATION BANDWIDTH (BW)   |                    | 5 kHz min.  |              |
| CONTROL VOLTAGE RANGE       |                    | 1.65VDC $\pm 1.35$ VDC for +3.3VDC / 2.5VDC $\pm 2.0$ VDC for +5.0VDC |              |
| CENTER VOLTAGE              |                    | 1.65VDC for +3.3VDC / 2.5VDC for +5.0VDC                              |              |
| PULLING RANGE               |                    | $\pm 50$ ppm ~ $\pm 100$ ppm min.                                     |              |
| LINEARITY                   |                    | 10% max.  |              |
| SLOPE                       |                    | POSITIVE  |              |
| PHASE NOISE                 |                    | $-70\text{dBc/Hz}$ @10Hz  |              |
|                             |                    | $-130\text{dBc/Hz}$ @10kHz  |              |
| PIN CONNECTION              | PIN 1              | CONTROL VOLTAGE   |              |
|                             | PIN 2              | ENABLE/DISABLE FUNCTION   |              |
|                             | PIN 3              | GROUND  |              |
|                             | PIN 4              | OUTPUT  |              |
|                             | PIN 5              | NOT CONNECT   |              |
|                             | PIN 6              | SUPPLY VOLTAGE  |              |
|                             | OPTION             | OTHER PIN CONNECTIONS AVAILABLE ON REQUEST                            |              |

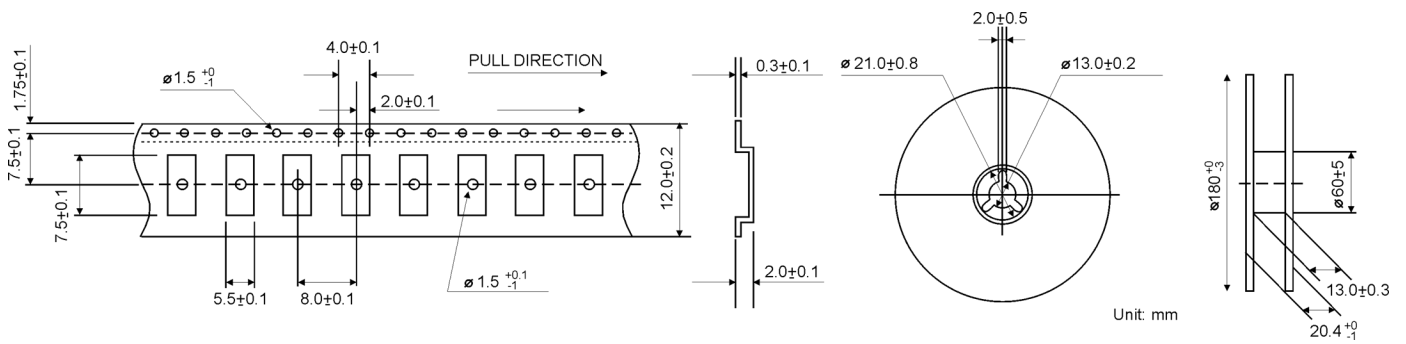
## GENERAL DATA (CONTINUED)

| PARAMETERS  |  | PRODUCT FEATURES AND CONDITIONS  |              |
|---|--|--|--------------|
| ENABLE / DISABLE FUNCTION   |  | PIN 2 ENABLE/DISABLE   | PIN 4 OUTPUT |
|   |  | >0.7 VDD MIN. OR OPEN  | OSCILLATION  |
|   |  | <0.3VDD MAX.   | DISABLE      |
| DELIVERY FORM   |  | Tape and Reel / 1.000 pcs. per reel, other quantities are available on request |              |
| <b>OTHER PARAMETERS ARE AVAILABLE ON REQUEST / CREATE HERE YOUR SPECIFICATION</b> |  |  |              |

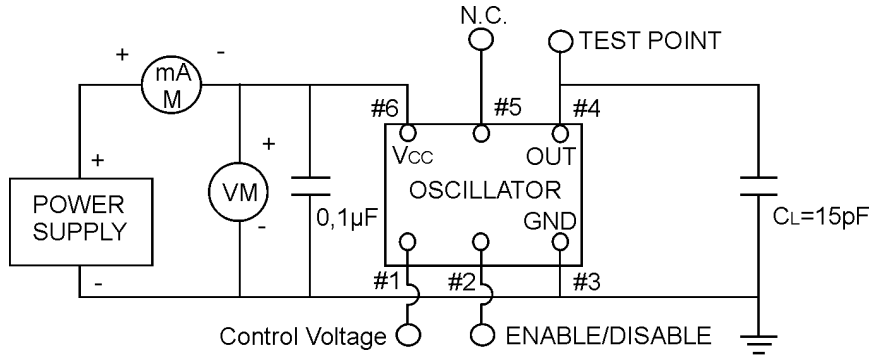
## OUTLINE DRAWING



## REEL SPECIFICATION



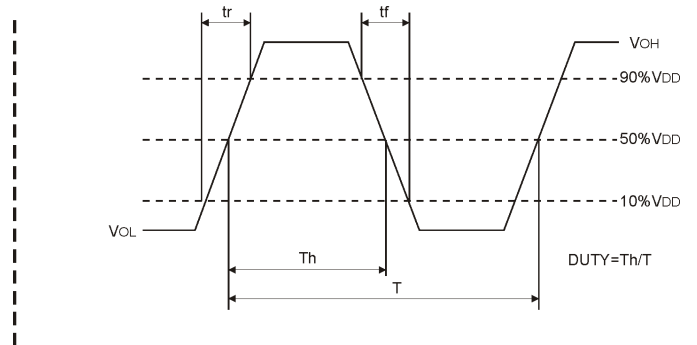
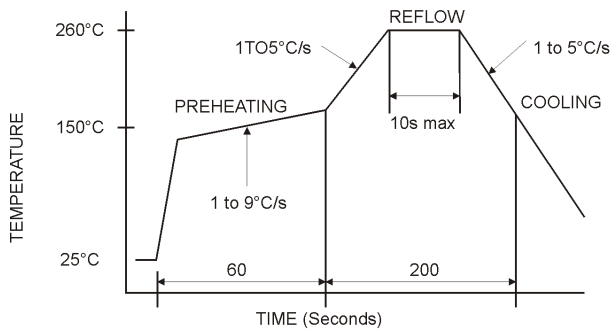
## TEST CIRCUIT FOR CMOS



NOTE: CL includes probe and fixture capacitance

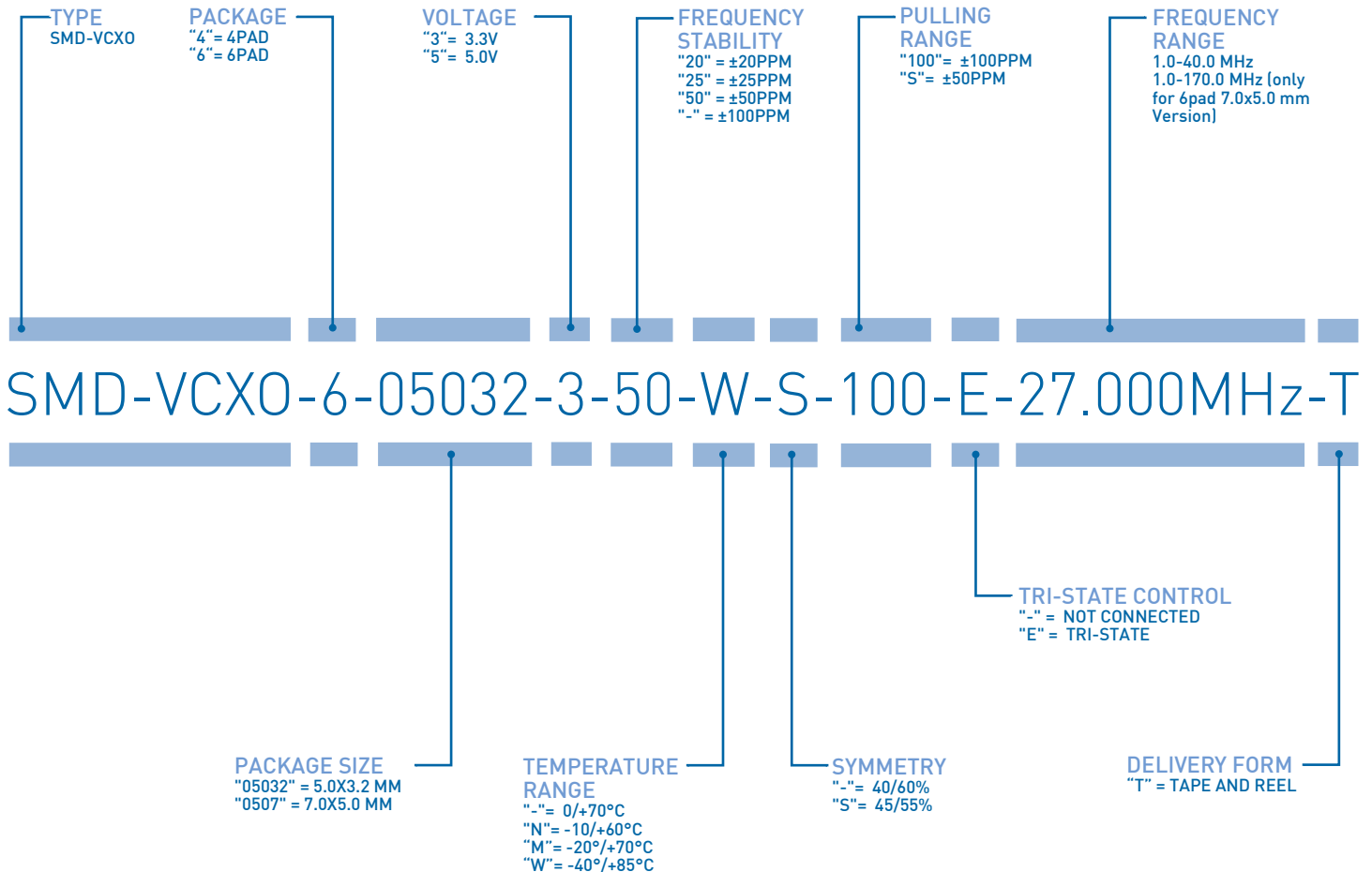
## REFLOW SOLDER PROFILE

## CMOS LOAD





## ORDERING INFORMATION



EXAMPLE: SMD-VCXO-6-05032-3-50-W-S-100-E-27.000MHZ-T

PLEASE INDICATE YOUR REQUIRED PARAMETERS



## PREMIUM QUALITY BY PETERMANN-TECHNIK



OUR COMPANY IS CERTIFIED ACCORDING TO ISO 9001:2015 IN OCTOBER 2016 BY THE DMSZ CERTIFIKATION GMBH.

THIS IS FOR YOU TO ENSURE THAT THE PRINCIPLES OF QUALITY MANAGEMENT ARE FULLY IMPLEMENTED IN OUR QUALITY MANAGEMENT SYSTEM AND QUALITY CONTROL METHODS ALSO DOMINATE OUR QUALITY STANDARDS.