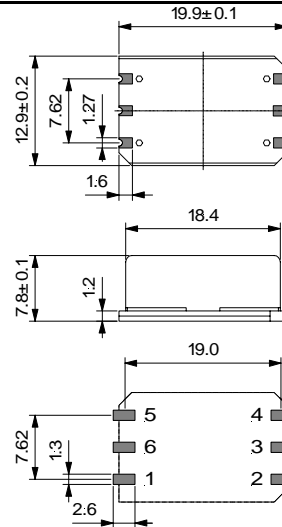
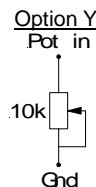


SURFACE MOUNT MINIATURE TCXO

TYPES DFA S7-KHZ (5 V) & DFA S7-LHZ (3.3 V)

RECOMMENDED FOR NEW DESIGNS
SURFACE MOUNTABLE PACKAGE
5 V OR 3.3 V SUPPLY VOLTAGE
TIGHT STABILITY

| Function | DFA S7 |
|-------------------|--------|
| NC / Pot in / Vcc | 1 |
| GND | 2 |
| N / C | 3 |
| Output | 4 |
| Vcc | 5 |
| E / D | 6 |



PC board footprint

| TYPE | DFA S7-KHZ | DFA S7-KOZ | DFA S7-LHZ | DFA S7-LOZ |
|-----------------|-------------|-------------|-------------|-------------|
| Frequency Range | 2 to 50 MHz | 2 to 50 MHz | 2 to 45 MHz | 2 to 45 MHz |

| ELECTRICAL SPECIFICATIONS | | | | |
|-------------------------------------|--|-------------------------------|-------------------------------|-------------------------------|
| supply voltage | 5 V ± 5 % | 5 V ± 5 % | 3.3 V ± 5 % | 3.3 V ± 5 % |
| supply current (no load) | ≤ 25 MHz ≤ 35 MHz > 35 MHz | ≤ 20 mA ≤ 30 mA ≤ 40 mA | ≤ 10 mA ≤ 15 mA ≤ 20 mA | ≤ 10 mA ≤ 15 mA ≤ 20 mA |
| output load | HCMOS 15 pF or 2 TTL | clipped sine 20kΩ/5 pF | HCMOS 15 pF or 1 TTL | clipped sine 20kΩ/5 pF |
| duty cycle @ 2.5V (LH @ 1.65 V) | ≤ 45/55...55/45 % | | ≤ 45/55...55/45 % | |
| rise/fall times (10 to 90 %) | ≤ 10 ns | | ≤ 10 ns | |
| high/low levels or output amplitude | ≥ 3.5 V / ≤ 0.5 V | ≥ 2 V p-p | ≥ 2.7 V / ≤ 0.2 V | ≥ 1.5 V p-p |
| start-up | ≤ 10 ms @ 4.75V | ≤ 10 ms @ 4.75V | ≤ 10 ms @ 3.15V | ≤ 10 ms @ 3.15V |
| tri-state control on pin 6 | High or open = enable, low = high Z | | | |
| remarks | duty cycle for frequencies > 30 MHz is 40/60%...60/40% | | | |

| FREQUENCY STABILITY | | | detailed tolerances [ppm] | | | |
|---------------------|-------------------|------------|---|-----------|-------------|--------|
| type | temperature range | model code | stability versus : | | | Ageing |
| | | | temperature | Vcc range | load ± 10 % | |
| all types | -10 to 60°C | D1 | ≤ ± 1 | ≤ ± 0.1 | ≤ ± 0.1 | ≤ ± 1 |
| | -20 to 70°C | C1 | ≤ ± 1 | | | |
| | -30 to 75°C | C2 | ≤ ± 2 | | | |
| DFA S7-K type | -40 to 85°C | N2 | ≤ ± 2 | ≤ ± 0.1 | ≤ ± 0.1 | ≤ ± 1 |
| | | E3 | ≤ ± 3 | | | |
| remarks | | | factory calibration if no trimming option ≤ ± 1 ppm ageing is 1 st year at 25°C | | | |

| OPTIONS | CODE | |
|--------------------------|------|--|
| external voltage control | V | DFA S7-K : 2.5 V ± 2 V ≥ ± 5 ppm, positive slope DFA S7-L : 1.5 V ± 1.5 V ≥ ± 5 ppm, positive slope |
| internal trimmer | A | ≥ ± 5 ppm |
| external potentiometer | Y | 10 kΩ ≥ ± 5 ppm, between pin 1 and GND (not available with internal trimmer) |

| ORDERING CODE | type + option code + frequency + model code |
|---------------|---|
| Example | DFA S7-KHZ 16.384 MHz E3 |