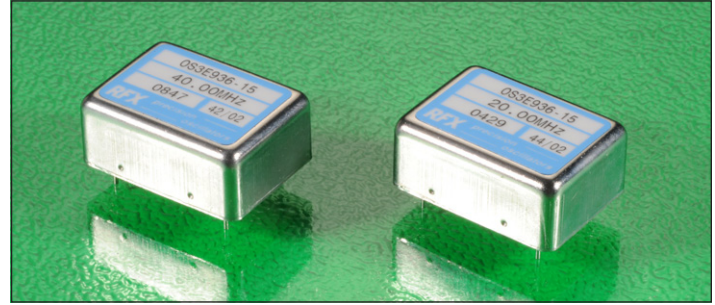


Stratum 3E compliant, GR-1244-CORE issue 2 and GR-63-CORE issue 1.

High quality, excellent phase noise, extremely low ageing from a precision SC cut resonator.

Manufactured to standard and custom frequencies 1.0Mz to 125MHz.



Standard options:

frequency range: _____ (1.0 ~ 125.0)MHz _____

supply voltage codes: _____ (V1)* _____ (V2)* _____ (V3)* _____
 supply voltage +3.3Vd.c. +5.0Vd.c. +12.0Vd.c.
 trim reference option* +3.0Vd.c. +4.5Vd.c. +4.5Vd.c.

* add suffix (R) for V_{ref} output on pin #5

Generic specification:

output: _____ CMOS 15pF, 45% ~ 55% _____
 rise and fall time 2ns max.

stability:
 against temperature change $\pm 0.0085\text{ppm}(0 +70)^\circ\text{C}$
 stratum 3E compliant long term and 24 hour holdover requirements of Stratum 3E levels specified in GR-1244-CORE issue 2 and GR-63-CORE issue 1
 against supply voltage change $\pm 0.002\text{ppm max. for } V_{cc} \pm 5\%$
 against load change $\pm 0.002\text{ppm max. for load } \pm 10\%$
 ageing short term $\pm 0.0005\text{ppm max. per day}$
 after 30 days continuous operation
 ageing long term $\pm 0.1\text{ppm max. first year}$
 voltage trim V_i $\pm 0.5\text{ppm min. typical, linearity } \pm 5\%$
 trim input impedance 100K Ω min.

power supplies:
 supply voltage V_{cc} +3.3Vd.c. +5.0Vd.c. +12.0Vd.c.
 start up current at min. temp. range 900mA max. 600mA max. 300mA max.
 quiescent current at max. temp. range 320mA max. 220mA max. 120mA max.
 warm up time 5 minutes max. to within 0.1ppm of nominal
 insulation resistance 500Meg Ω min., 100Vd.c.

phase noise:
 single sideband, 1Hz bandwidth -110dBc/Hz, $f_o + 10\text{Hz}$
 -135dBc/Hz, $f_o + 100\text{Hz}$
 -155dBc/Hz, $f_o + 1\text{kHz}$

temperature:
 operating range (0 +70) $^\circ\text{C}$
 storage range (-40 +125) $^\circ\text{C}$



Environmental conditions:

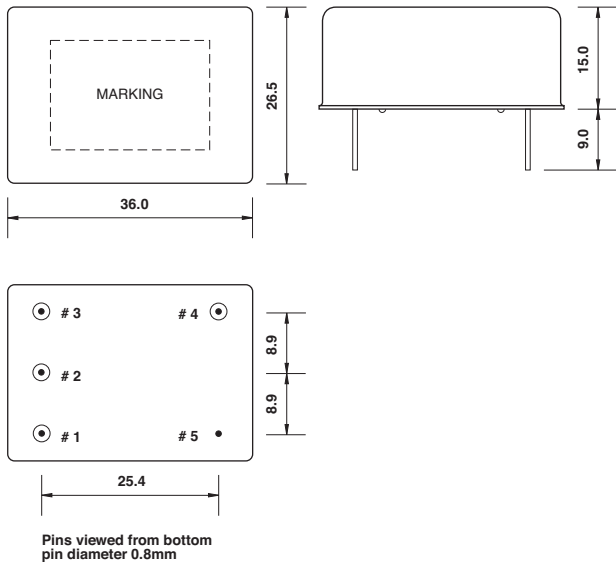
mechanical shock: MIL standard 202F, method 213, condition J
thermal shock: MIL standard 202F, method 107, condition A
vibration: MIL standard 202F, method 204, condition B
solderability: 5 seconds max. at +230°C, 3 seconds max. at +350°C

Marking: part number and frequency on high temperature metalised polyester label

Ordering code: **standard specification:** OS3E936-15-V2* - 10.00M
OS3E936-15 = **series generic code**
V2* supply voltage code: **V2 = +5Vd.c. supply**
10.00M *Add suffix (R) for V_{ref} output on pin #5
output frequency: **10.00M = 10.000MHz**

Custom specification: part number issued with custom specification and drawing

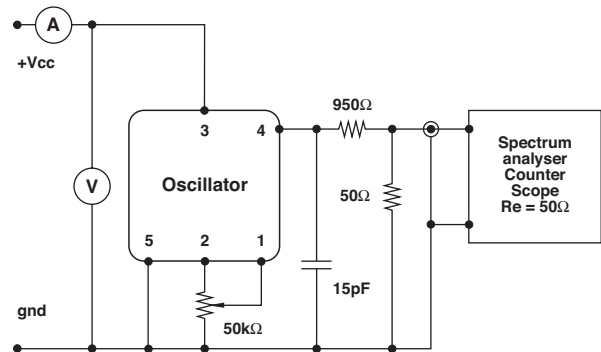
Dimensions(mm):



Pin connections:

- # 1 trim
- # 2 n.c. or trim reference voltage*
- # 3 +V_{cc}
- # 4 output
- # 5 ground/case

Test circuit, CMOS load:



test circuit includes a 20:1 step down into a matched 50Ω load