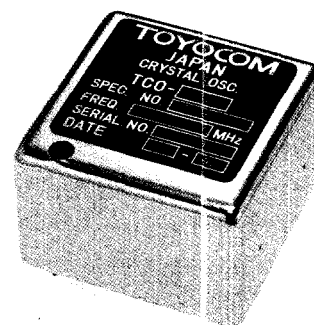
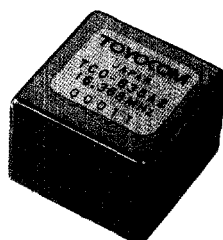


OCXO

TCO-635, 627, 632 Series

Features

- Excellent long and short term stability
- Low SSB phase noise
- Fast warm-up
- Miniature size
- Low profile
- Low power consumption

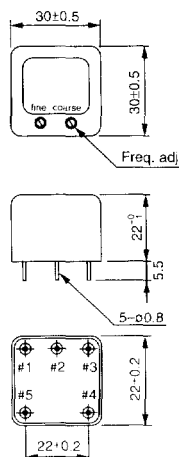


Specifications

Type	TCO-635A	TCO-635A1,2	TCO-627B	TCO-627F	TCO-632B
Standard frequency	10MHz	10MHz	5MHz or 10MHz	6.4MHz	10MHz
Stability vs Temperature	$\pm 1 \times 10^{-7} / -20V \text{ to } +70^{\circ}C$		$\pm 5 \times 10^{-8} / -10 \text{ to } +60^{\circ}C$		$\pm 3 \times 10^{-8} / -10 \text{ to } +60^{\circ}C$
Stability vs Supply voltage	$\pm 3 \times 10^{-8} / +12V \pm 10\%$		$\pm 5 \times 10^{-8} / +12V \pm 10\%$		$\pm 5 \times 10^{-8} / +12V \pm 5\%$
Aging (After 24h operation)	$\pm 2 \times 10^{-8} / \text{day}$	$\pm 2 \times 10^{-8} / \text{day}$	$\pm 2 \times 10^{-8} / \text{day}$	$\pm 2 \times 10^{-8} / \text{day}$	$\pm 5 \times 10^{-8} / \text{day}$
	$\pm 2 \times 10^{-7} / \text{year}$	$\pm 2 \times 10^{-7} / \text{year}$	$\pm 1 \times 10^{-7} / \text{year}$	$\pm 1 \times 10^{-7} / \text{year}$	$\pm 5 \times 10^{-8} / \text{year}$
Warm-up	$\pm 5 \times 10^{-8}$		$\pm 5 \times 10^{-8}$	$\pm 2 \times 10^{-7}$	$\pm 2 \times 10^{-8}$
	within 5 minutes at $+25^{\circ}C$		within 10 minutes at $+25^{\circ}C$	within 5 minutes at $-10^{\circ}C$	within 30 minutes at $+25^{\circ}C$
Output	$+8 \pm 2\text{dB}/50\Omega$ Sinewave		TTL Compatible (Fanout 2)		
Supply voltage	$+12V \pm 10\%$				$+12V \pm 5\%$
Current drain	Warm-up	150 mA Max	330 mA Max	550 mA Max	400 mA Max
	Steady state at $25^{\circ}C$	70 mA Max	150 mA Max	150 mA Max	150 mA Max
Frequency adjustment	$\pm 1 \times 10^{-6}$ Min		$\pm 5 \times 10^{-7}$ Min		$\pm 3 \times 10^{-7}$ Min
Weight	30g		100g		100g
Available frequency range	—	5 to 25MHz	4 to 10MHz	—	—

Outline Drawing [mm]

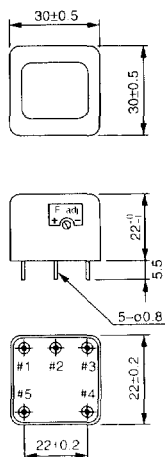
[TCO-635A, A1]



Pin connections

1	NC
2	NC
3	GND/case
4	Output
5	Vcc

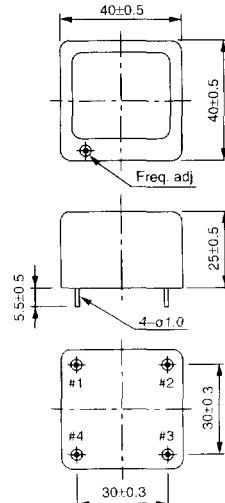
[TCO-635A2]



Pin connections

1	NC
2	NC
3	GND/case
4	Output
5	Vcc

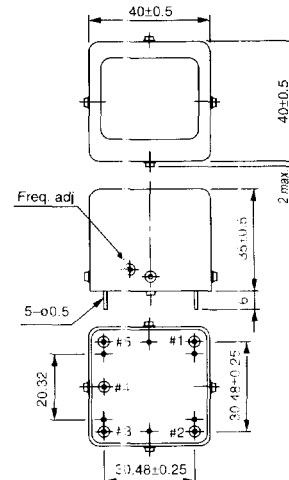
[TCO-627B, F]



Pin connections

1	NC
2	Output
3	Vcc
4	GND/case

[TCO-632B]



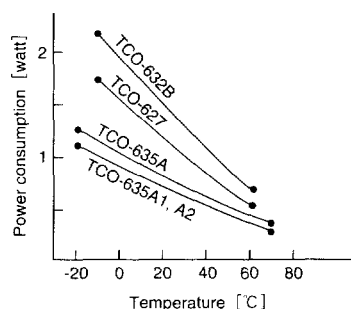
Pin connections

1	GND/case
2	Output
3	Vcc
4	GND/case
5	NC

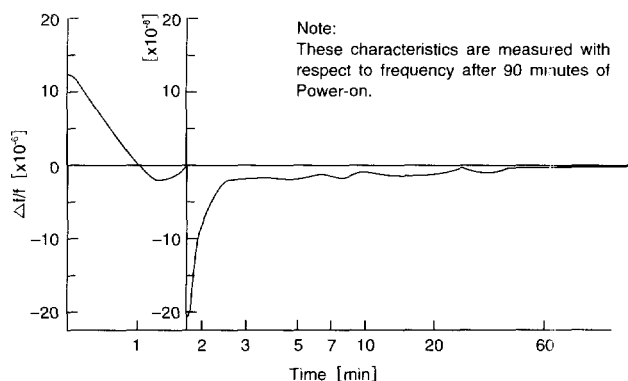
Electrical Data

TCO-635A

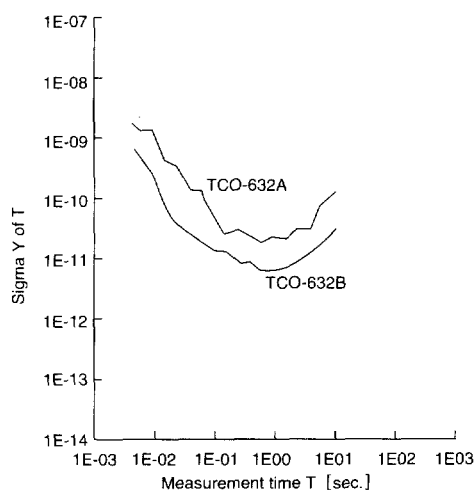
Power consumption vs. Ambient temperature



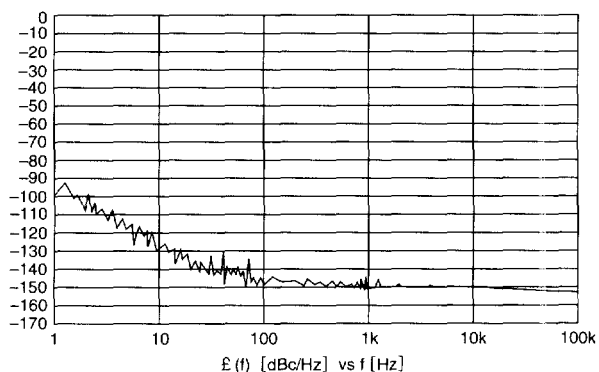
TCO-635A Warm-up characteristics at +25°C



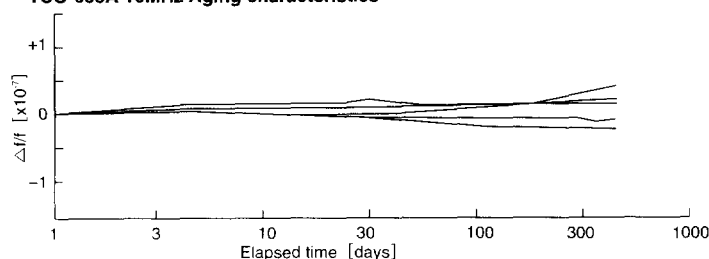
Short-term stability



TCO-635A2 10MHz SSB phase noise

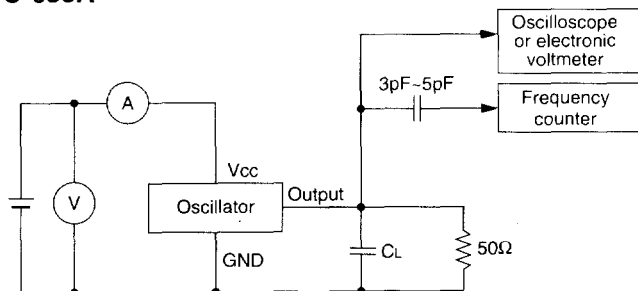


TCO-635A 10MHz Aging characteristics



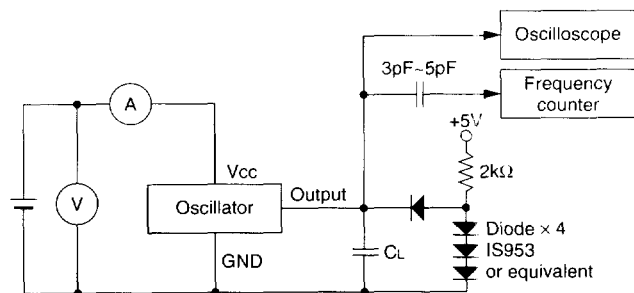
Test Circuit

TCO-635A



CL: Total fixture and probe capacitance

TCO-635A1, A2/TCO-627B, F/TCO-632B



CL: Total fixture and probe capacitance= 15pF max.