

STP2658: Stratum 3E Performance (-40 to 85°C)

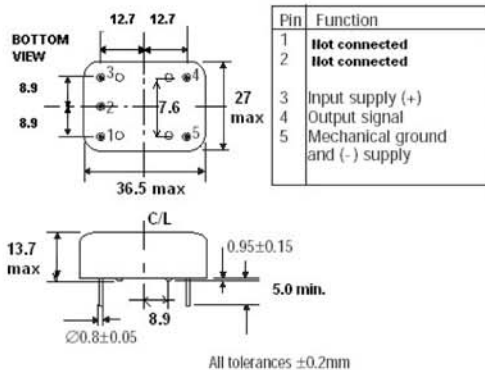
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- 1./ Nominal frequency (Fo) 12.8 MHz
Initial accuracy at delivery @ +25°C / $\leq \pm 1.5 \times 10^{-6}$
- 2./ Supply voltage + 3.3 V \pm 5 %
- 2.1- Power consumption during warm-up ≤ 3.5 W
under steady state at 25°C/calm air ≤ 1.5 W
- 3./ HCMOS compatible output signal into 15pF
- 3.1- Voh / Vol $> +2.4$ V / $\leq +0.4$ V
- 3.2- Duty cycle at 50% output signal 50 ± 10 %
- 3.3- Rise and fall-times (between 10% & 90%) < 5 ns
- 3.4- Phase noise in dBc / Hz (typical)
 - @ 10 Hz - 120
 - @ 100 Hz - 135
 - @ 1 kHz & over - 145
- 3.5- Sub-harmonics (dBc) ≤ -30
- 3.6- Spurious (dBc) ≤ -30

- 4./ Frequency stability versus operating conditions
(after frequency recovery – see below graph)
 - 4.1- over temperature (-40 to 85°C, calm air) $\leq \pm 1 \times 10^{-8}$
 - 4.2- versus voltage variation (+3.3 V \pm 5%) $\leq \pm 2 \times 10^{-9}$
 - 4.3- versus load change (1 to 2 loads) $\leq \pm 2 \times 10^{-9}$
 - 4.4- Ageing per day (before shipment) $\leq \pm 3 \times 10^{-10}$
Drift 24 h with $\pm 5^\circ\text{C}$ variation $\leq \pm 3 \times 10^{-9}$
 - ageing over lifetime (20 years) $\leq \pm 1.0 \times 10^{-6}$
 - 4.5- Short term (Allan Dev.1s steady state) $\leq \pm 5 \times 10^{-12}$
 - 4.6- Warm-up time @ +25°C ≤ 5 min

- 5./ Environmental conditions
(not operating _ only for qualification)
 - 5.1- Storage temperature range -50°C to $+90^\circ\text{C}$
 - 5.2- Shocks 50 g - 11 ms - 1/2 sine
IEC 68-2-27 _ Test Ea / Severity 50A
 - 5.3- Vibration 10 g ; 10 - 500 Hz
IEC 68-2-06 Test Fc / Severity 500/10

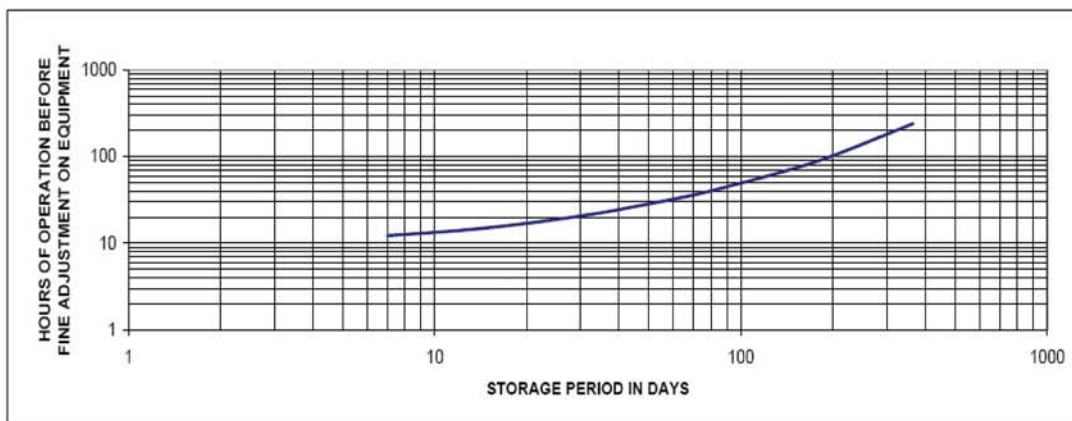
Outline in mm - Package 36B Ito EFC - Ito Reference



- 6./ Identification / Marking
(printed Label on cover top)
 - Part Number
 - Nominal Frequency
 - Serial Number (6 digits)
 - Manufacturing Date code

RAKON
STP 2658 LF
12.8 MHz
L Nnnnn
Yy Ww

- 7./ Package type "36B" (metal solder-sealed package)
Pin out connections diameter = 0.80 ± 0.05 mm



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