

## DIL 14 PACKAGE TCXO

### DFA 14-K (5 V) & DFA 14-L (3.3 V)

#### KEY FEATURES

**2 to 52 MHz**

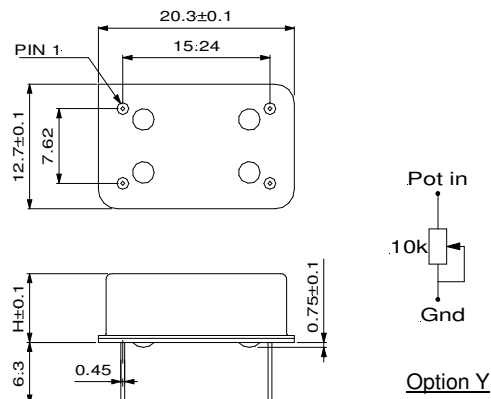
**Tight stability**

**Analogue temperature compensation**

#### APPLICATIONS

**SDH/Sonet/Microwave**

Function	DFA 14
NC/Pot in/Vco	1
GND	7
Output	8
Vcc	14



H = 8.50 mm

TYPE	DFA 14-KH	DFA 14-KO	DFA 14-LH	DFA 14-LO
Frequency Range	2 to 52 MHz	2 to 52 MHz	2 to 45 MHz	2 to 45 MHz

ELECTRICAL SPECIFICATIONS		DFA 14-KH	DFA 14-KO	DFA 14-LH	DFA 14-LO
supply voltage		5 V ± 5 %	5 V ± 5 %	3.2 V to 3.6 V	3.2 V to 3.6 V
supply current ( no load)	≤ 25 MHz	≤ 10 mA	≤ 5 mA	≤ 5 mA	≤ 5 mA
	≤ 35 MHz	≤ 20 mA	≤ 20 mA	≤ 15 mA	≤ 15 mA
	> 35 MHz	≤ 30 mA	≤ 30 mA	≤ 20 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 @ 4.75 V	≤ 10 ms @ 4.75 V	≤ 10 ms @ 3.2 V	≤ 10 ms @ 3.2 V
remarks	duty cycle for frequencies > 30 MHz is 40/60%...60/40%				

FREQUENCY STABILITY			detailed tolerances [ ppm ]			
type	temperature range	model code	stability versus:			
			temperature	Vcc range	load ± 10 %	ageing
all types	-10 to 60 °C	D1	≤ ± 1	≤ ± 0.1	≤ ± 0.1	≤ ± 1
	-20 to 70 °C	C1	≤ ± 1			
		C2	≤ ± 2			
	-30 to 75 °C	N2	≤ ± 2			
DFA 14-K types	-40 to 85 °C	E5	≤ ± 5	≤ ± 0.1	≤ ± 0.1	≤ ± 1
		E3	≤ ± 3			
		E2	≤ ± 2			
remarks	factory calibration if no trimming option ≤ ± 1 ppm					
	ageing is 1 <sup>st</sup> year at 25 °C					
	DFA S7-L : Vcc range ≤ ± 0.3 ppm ( f ≥ 30 MHz )					

OPTIONS	CODE	
external voltage control	V	DFA 14-K : 2.5 V ± 2 V ≥ ± 5 ppm, positive slope DFA 14-L : 1.5 V ± 1.5 V ≥ ± 5 ppm, positive slope
internal trimmer	A	≥ ± 5 ppm
external potentiometer	Y	10 kΩ ≥ ± 5 ppm (not available with internal trimmer)

ORDERING CODE	type + option code + frequency + model code
Example	DFA 14-KHAV 8.192 MHz E2