

**MINIATURE SMD TCXO**
**TYPE DFA S1-KHZ (5 V) & DFA S1-LHZ (3.3 V)**

RECOMMENDED FOR NEW DESIGNS

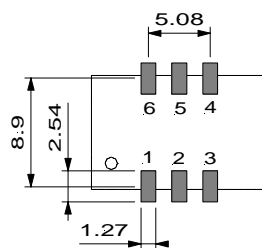
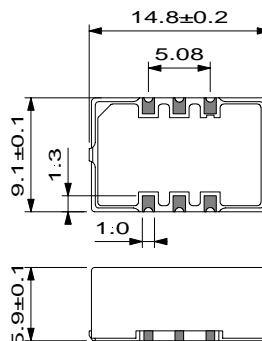
CRYSTAL PACKED INTO ITS OWN HOLDER

IDEAL FOR VOLUME APPLICATIONS

EXTERNAL VOLTAGE CONTROL

LOW PROFILE

TENTATIVE DATA



PC board footprint

Function	DFA S1
V control / GND	1
E / D	2
GND	3
Output	4
N / C	5
Vcc	6

TYPE	DFA S1-KHZ	DFA S1-LHZ
Frequency Range	10 to 30 MHz	10 to 30 MHz

ELECTRICAL SPECIFICATIONS	DFA S1-KHZ	DFA S1-LHZ
Supply voltage	5 V $\pm$ 5 %	3.3 V $\pm$ 5 %
Supply current ( no load)	$\leq$ 20 mA	$\leq$ 10 mA
output load	HCMOS 15 pF or 2 TTL	HCMOS 15 pF or 2 TTL
duty cycle @ 50% level	40/60...60/40 %	40/60...60/40 %
rise/fall times (10 to 90 %)	$\leq$ 10 ns	$\leq$ 10 ns
high/low levels or output amplitude	$\geq$ 4.5 V / $\leq$ 0.5 V	$\geq$ 2.8 V / $\leq$ 0.3 V
start-up	$\leq$ 10 ms @ 4.75 V	$\leq$ 10 ms @ 3.15 V
tri-state control on pin 2	High or open = enable, low = high Z	High or open = enable, low = high Z

FREQUENCY STABILITY			detailed tolerances [ ppm ]			
type	temperature range	model code	temperature	stability versus :		calibration @ 25°C
				Vcc $\pm$ 5 %	load $\pm$ 10 %	ageing
all types	0 to 70°C	B0.5	$\leq \pm 0.5$	$\leq \pm 0.3$	$\leq \pm 0.3$	$\leq \pm 1$
	-20 to 70°C	C1.5	$\leq \pm 1.5$			
	-30 to +75°C	N2.5	$\leq \pm 2.5$			
Remarks			ageing is 1 <sup>st</sup> year at 25°C			

OPTIONS	CODE	
tighter symmetry	R	45/55...55/45 %
voltage control on pin 1 (positive slope)	V	$\geq \pm 5$ ppm, $\leq \pm 15$ ppm 2.5 V $\pm$ 2 V
		$\geq \pm 5$ ppm, $\leq \pm 15$ ppm 1.65 V $\pm$ 1.35 V

ORDERING CODE	type + option code + frequency + model code
Example	DFA S1-KHZV 19.44 MHz N2.5