



2.5x2.0mm SMD Oscillators - Type KF1

Pb-Free & RoHS Compliant

Model Designator Key & Specifications

Base Model	Input Voltage	Freq Stability	Operating Temp. Range
KF1 (2.5x2.0mm & Tristate)	33 = 3.3V	A = ± 25 PPM	S = -10°C to $+70^{\circ}\text{C}$ I = -40°C to $+85^{\circ}\text{C}$
	25 = 2.8V	B = ± 50 PPM	
	18 = 1.8V	C = ± 100 PPM	

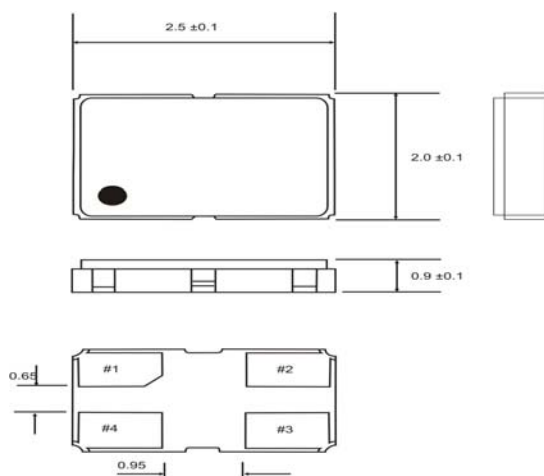
Operating Conditions

Storage Temp Range	-55°C to $+125^{\circ}\text{C}$
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Electrical Characteristics ($T_a = -20^{\circ}\text{C}$ to $+70^{\circ}\text{C}$, $V_{DD} = 3.3\text{V}$, 2.5V , & 1.8V , $C_L = 15\text{pF}$)

Parameter	Condition	Frequency Range (MHz)	Specifications		
			KF1-33	KF1-25	KF1-18
Input Current (I_{DD})	15pF Load	1.800 to 50.000	20.0mA Max.	12.0mA Max.	7.0mA Max.
Symmetry	@ 50% VDD	1.80 ~ 50.00	45/55%		
Output Voltage	(V_{OL})		0.33V Max.	0.25V Max.	0.36V Max.
	(V_{OH})		2.97V Min.	2.25Min.	1.44Min.
Rise Time	(T_R)		6nS Max.		5nS Max
Fall Time	(T_F)		6nS Max.		5nS Max
Output Current	(I_{OL})		2mA Max		
	(I_{OH})		2mA Min.		
Stand-By Current	at "0"-Level		10 μ A Max.		
Load	Cmos		15pF		
Start-Up Time	0V to V_{DD}		5mS Max.		

Dimensions (mm)



Enable/Disable Function	
Control (Pin #1)	OUTPUT (Pin #3)
Open	Active
"1" ($V_{IH} \geq 70\%V_{DD}$)	Active
"0" ($V_{IL} \leq 30\%V_{DD}$)	High Z

Pin Connections	
#1	E/D
#2	VSS
#3	OUT
#4	VDD

