

# ECS-2532HS

## SMD Clock Oscillator

ECS-2532HS-2 (2.8V) and ECS-2532HS-3 (3.3V) subminiature High Stability SMD oscillators. = U c f r c U g tight tolerance applications.

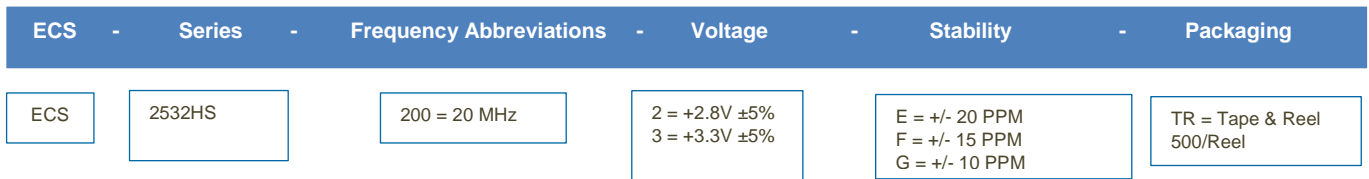
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### OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

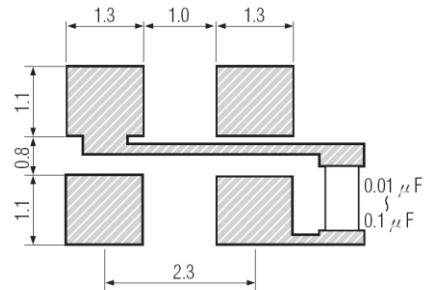
ECS-2532HS	Parameters	Conditions	ECS-2532HS-2 (+2.8V)			ECS-2532HS-3 (+3.3V)			Units
			MIN	TYP	MAX	MIN	TYP	MAX	
	<b>Frequency Range</b>		1.000		55.000	1.000		55.000	MHz
	<b>Operating Temperature</b>	Standard	-40		+85	-40		+85	°C
	<b>Supply Voltage</b>	VDD	+2.66	+2.8	+2.94	+3.135	+3.3	+3.465	VDC
	<b>Frequency Stability</b>	Option E			±20			±20	PPM
		Option F			±15			±15	PPM
		Option G			±10			±10	PPM
	<b>Input Current</b>	Pin 1 Open or ViH			10			10	mA
	<b>Stand-by Current</b>	Pin 1 = VIL			10			10	µA
	<b>Output Symmetry</b>	@50% VDD Level			45/55			45/55	%
	<b>Rise and Fall Times</b>	10% VDD to 90% Level			5			5	ns
	<b>"0" Level</b>	VOL			10% VDD			10% VDD	VDC
	<b>"1" Level</b>	VOH	90% VDD			90% VDD			VDC
	<b>Output Load</b>	CMOS			15			15	pF
	<b>Disable Delay Time</b>				100			100	ns
	<b>Startup Time</b>				10			10	ms
	<b>Aging</b>	@ +25°C ±3°C first year			2			2	PPM

- High Stability Oscillator
- 2.5 x 3.2 mm Footprint
- Low Current Consumption
- RoHS Compliant

### Part Numbering Guide: Example ECS-2532HS-3-G-TR



### Package Dimensions (mm)



**Figure 2) Land Pattern**

**Figure 1) Top, Side, and Bottom views**

Pin Connections	
#1	Tri-State
#2	Ground
#3	Output
#4	VDD

Tri-State Control Voltage	
Pad 1	Pad 3
Open	Output
VDD-0.5V Min	Output
0.5V Max. (Note 1)	High Impedance

*Note: Internal crystal oscillation to be halted (Pin #1=VIL)*

**Figure 3) Suggested Reflow Profile**



## ECS-2532HS

SMD Clock Oscillator

Package Data	
Item	Description
Lid	Metal
Base	Ceramic
Sealing	AuSn
Terminal	Tungsten (metalized)
Plating	Gold/Nickel (Surface)/(Under)
RoHS	Compliant (Pb Free)

**Figure 4)** Pocket Tape Dimensions