



### Electrical Performance

Parameter		Min.	Typ.	Max.	Units	Notes
Output frequency		1.544		100	MHz	As specified
Supply voltage		+1.71	+1.8	+1.89	V	
Supply current, output enabled				4	mA	<36 MHz
				7		36 to 50 MHz
				10		>70 to 100 MHz
				20		>50 to 70 MHz
Supply current, standby mode				10	μA	1.544 to <36 MHz
				100	μA	36 to 70 MHz
Frequency stability				±50	ppM	See Note 1 below
Operating temperature		0		+70	°C	As specified
Output logic 0, VOL				10% V <sub>DD</sub>	V	
Output logic 1, VOH		90% V <sub>DD</sub>			V	
Output load		15 pF (max)				
Duty cycle		45		55	%	measured 50%VDD
Rise and fall time	up to <36 MHz			4	ns	measured 20/80% of waveform
	36 to 70 MHz			2.5		
Jitter, Phase	up to 80 MHz			1.5	ps RMS (1-σ)	10kHz to 20 MHz frequency band
	>80 to 125 MHz			1		
Jitter, Accumulated	up to 80 MHz			5	ps RMS (1-σ)	20.000 adjacent periods
	>80 to 125 MHz			3		
Jitter, Total	up to 80 MHz			50	ps pk-pk	100.000 random periods
	>80 to 125 MHz			30		

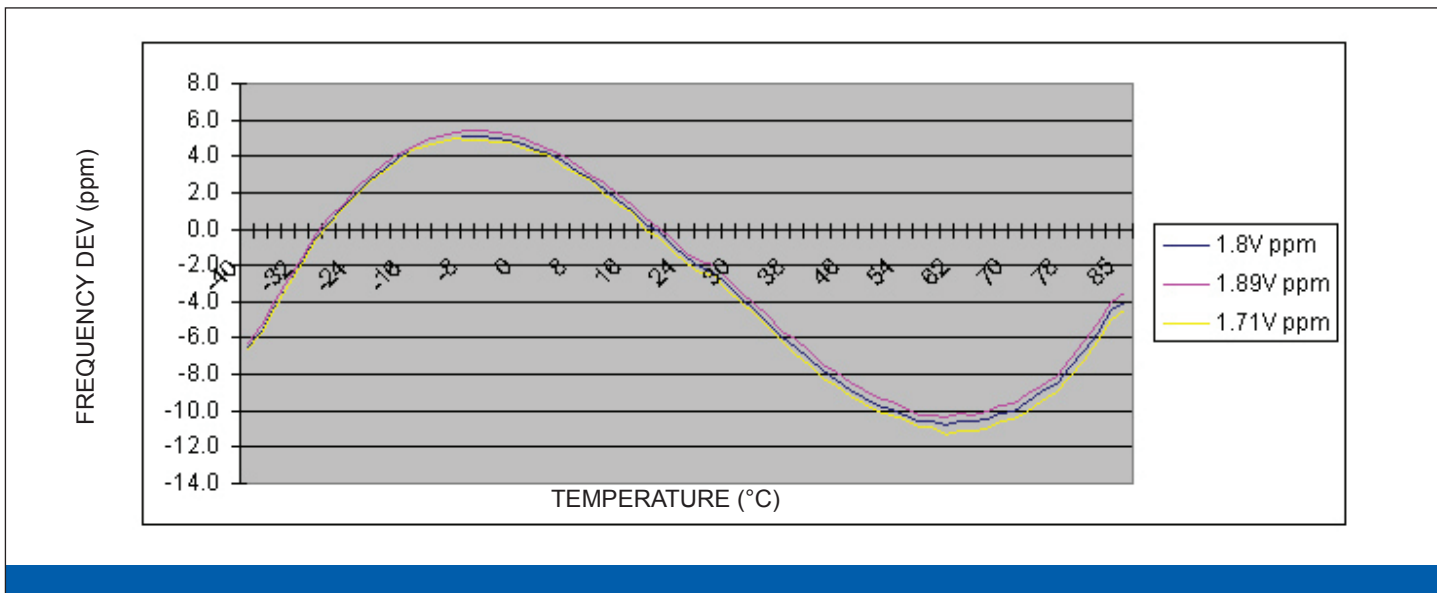
#### Notes:

- As specified. Stability includes all combinations of operating temperature, load changes, rated input (supply) voltage changes, initial calibration tolerance (25°C), aging (1 year at 25°C average effective ambient temperature), shock and vibration.
- Note: For specifications other than those listed, please contact sales.

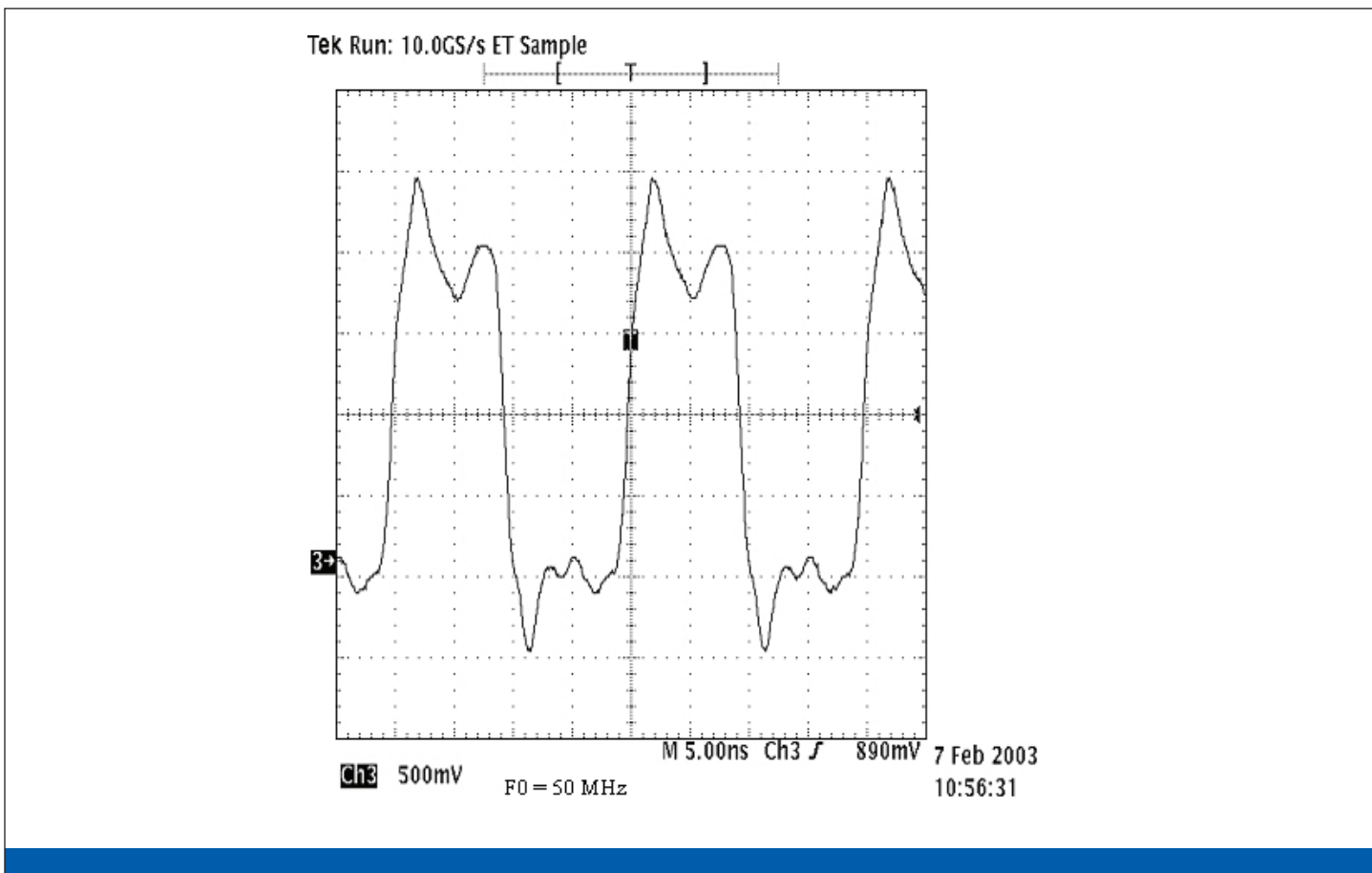
### Output Enable / Disable Function

Parameter		Min.	Typ.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable		0.7V <sub>DD</sub>			V	or open
Input voltage (pin 1), Output Disable (low power standby)				0.3V <sub>DD</sub>	V	Output is Hi-Z
Internal pullup resistance		30			kΩ	
Output disable delay				200	ns	
Output enable delay				10	ms	

## Typical Frequency Stability



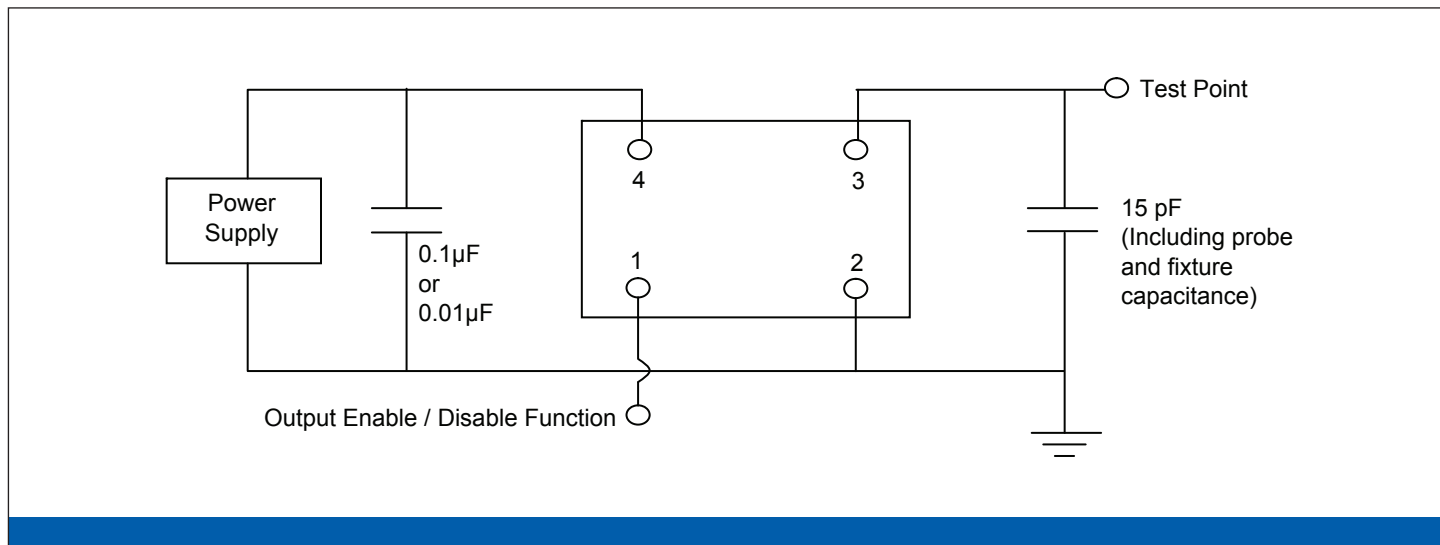
## Typical Output Waveform



### Absolute Maximum Ratings

Parameter	Min.	Typ.	Max.	Units	Notes
Storage temperature	-55		+125	°C	

### Test Circuit

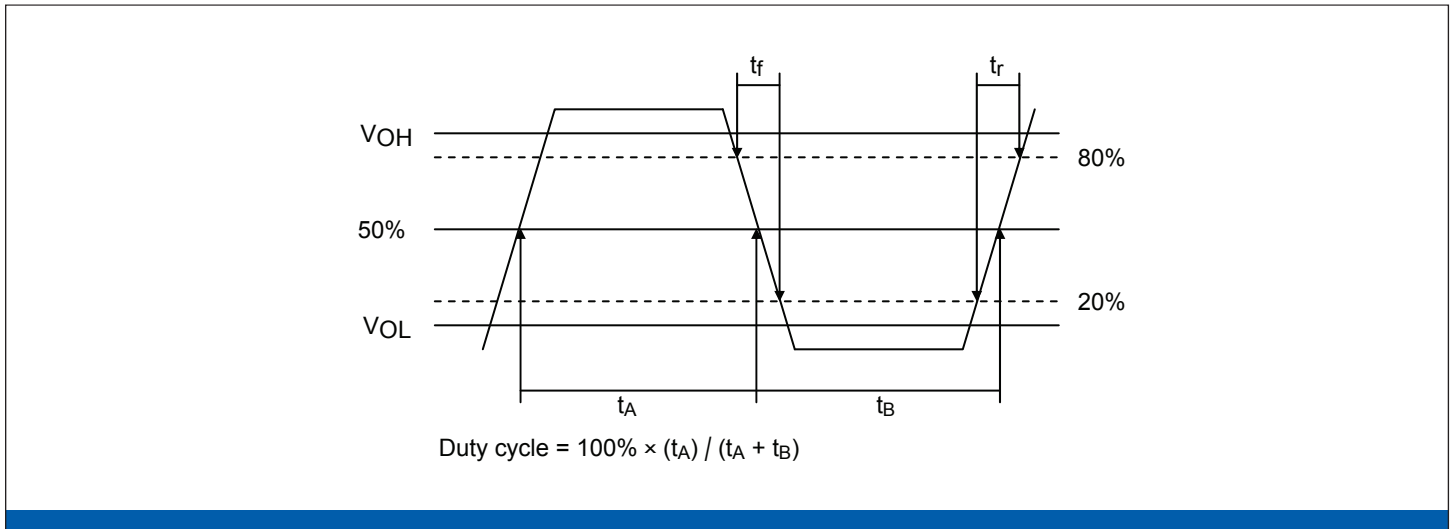


### Reliability Test Ratings

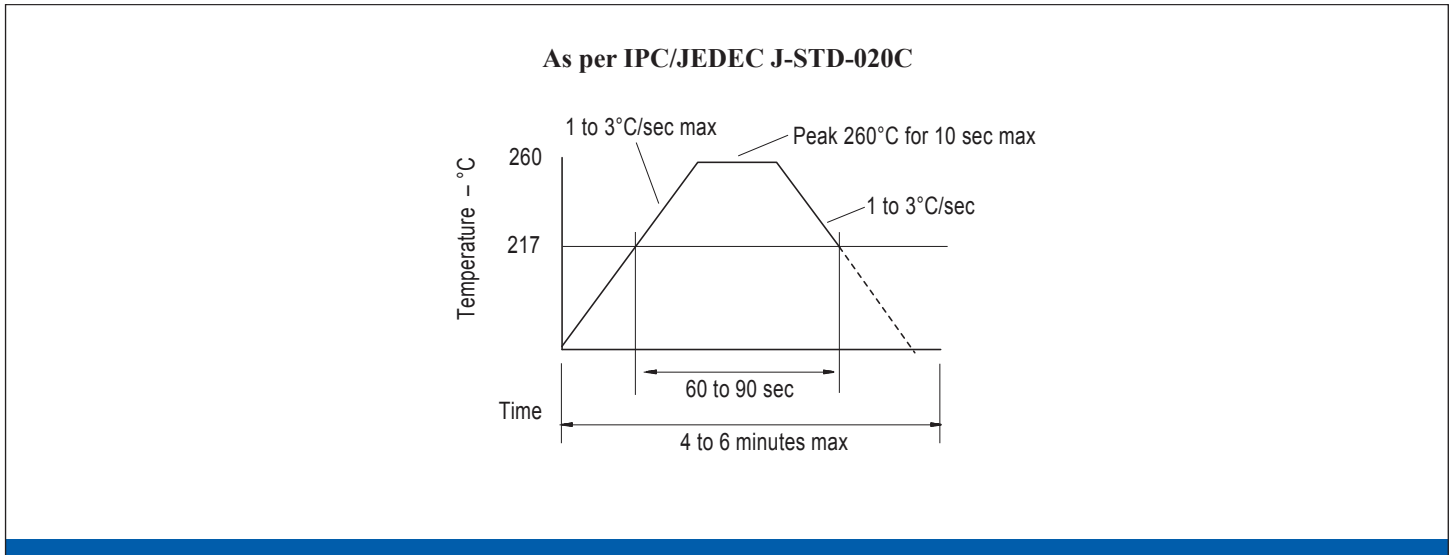
This product is rated to meet the following test conditions:

Type	Parameter	Test Condition
Mechanical	Shock	MIL-STD-883, Method 2002, Condition B
Mechanical	Solderability	JESD22-B102-D Method 2 (Preconditioning E)
Mechanical	Terminal strength	MIL-STD-883, Method 2004, Condition D
Mechanical	Gross leak	MIL-STD-883, Method 1014, Condition C
Mechanical	Fine leak	MIL-STD-883, Method 1014, Condition A2 ( $R_1 = 2 \times 10^{-8}$ atm cc/s)
Mechanical	Solvent resistance	MIL-STD-202, Method 215
Environmental	Thermal shock	MIL-STD-883, Method 1011, Condition A
Environmental	Moisture resistance	MIL-STD-883, Method 1004
Environmental	Vibration	MIL-STD-883, Method 2007, Condition A
Environmental	Resistance to soldering heat	J-STD-020C Table 5-2 Pb-free devices (2 cycles max)

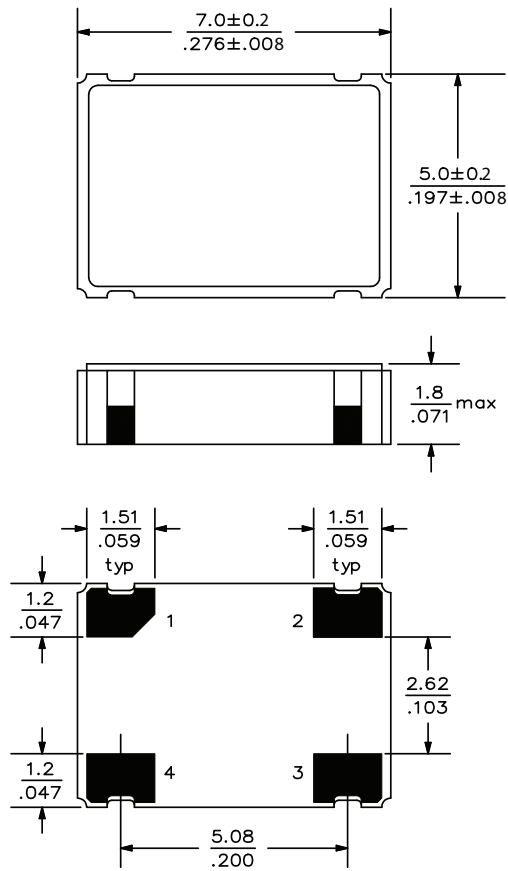
## Output Waveform



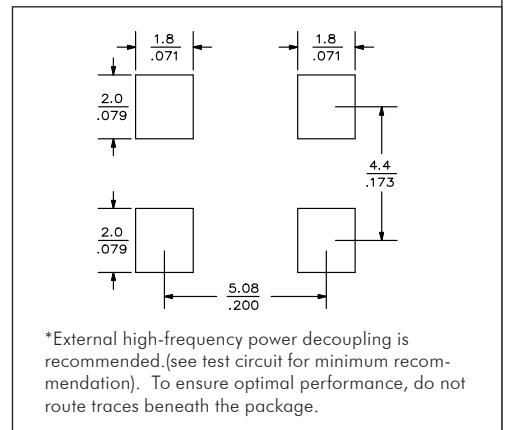
## Reflow Soldering Profile



### Mechanical Drawings



### Recommended Land Pattern\*



\*External high-frequency power decoupling is recommended. (see test circuit for minimum recommendation). To ensure optimal performance, do not route traces beneath the package.

Scale: None. Dimensions are in mm/inches.