



**Electrical Performance**

Parameter	Min.	Typ.	Max.	Units	Notes
Output frequency	1.544		156.25	MHz	As specified
Supply voltage	+2.97	+3.3	+3.63	V	
Supply current, output enabled			15	mA	1.544 to 32 MHz
			25		>32 to 50 MHz
			40		>50 to 80 MHz
			55		>80 to 156.25 MHz
Supply current, standby mode			10	μA	Output Hi-Z
Frequency stability			±20 to ±50	ppM	See Note 1 below
Operating temperature	-40		+85	°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) or 10 LSTTL				
Duty cycle (1.544 to 80 MHz)	45		55	%	-40 to +85°C measured 50%VDD
Duty cycle (>80 to 156.25 MHz)	45		55	%	-10 to +70°C measured 50%VDD
Duty cycle (>80 to 156.25 MHz)	40		60	%	-40 to -10°C, +70 to +85°C measured 50%VDD
Rise and fall time	up to 50 MHz		7	ns	measured 20/80% of waveform
	>50 to 80 MHz		5		
	>80 to 125 MHz		3		
	>125 to 156.25 MHz		2		
Jitter, Phase	up to 80 MHz		1.5	ps RMS (1-σ)	10kHz to 20 MHz frequency band
	>80 to 156.25 MHz		1		
Jitter, Accumulated	up to 80 MHz		5	ps RMS (1-σ)	20.000 adjacent periods
	>80 to 156.25 MHz		3		
Jitter, Total	up to 80 MHz		50	ps pk-pk	100.000 random periods
	>80 to 156.25 MHz		30		

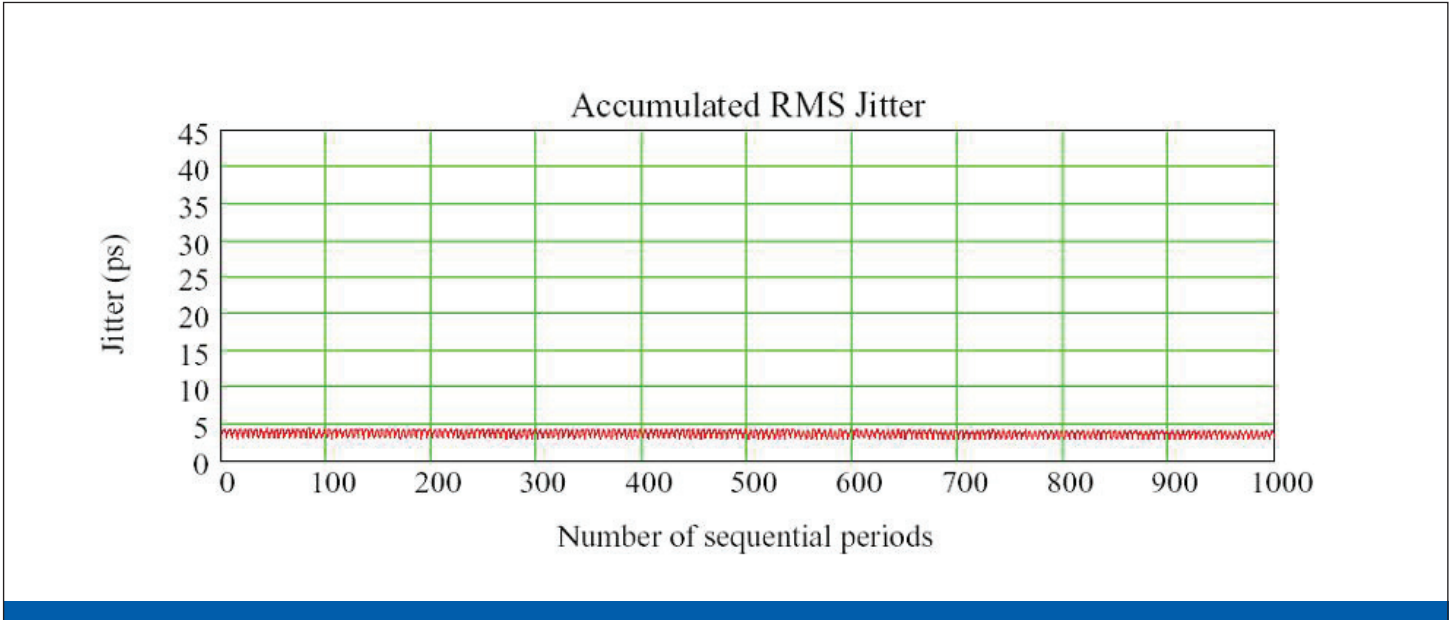
**Notes:**

- 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.
- For specifications other than those listed, please contact sales.

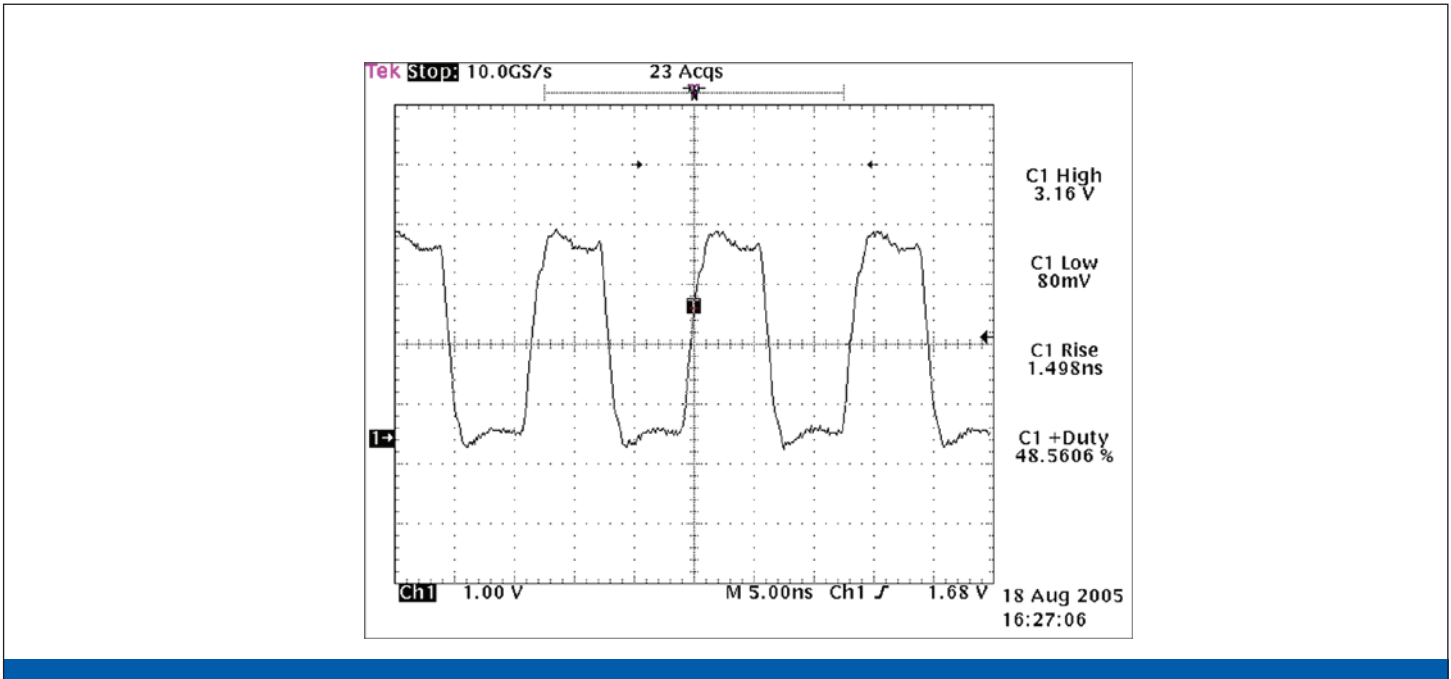
**Output Enable / Disable Function**

Parameter	Min.	Typ.	Max.	Units	Notes
Input Voltage (pin 1), Output Enable	2.2			V	or open
Input voltage (pin 1), Output Disable (low power standby)			0.8	V	Output is Hi-Z
Internal pullup resistance	50			kΩ	
Output disable delay			100	ns	
Output enable delay			10	ms	

**Typical Accumulated Jitter**



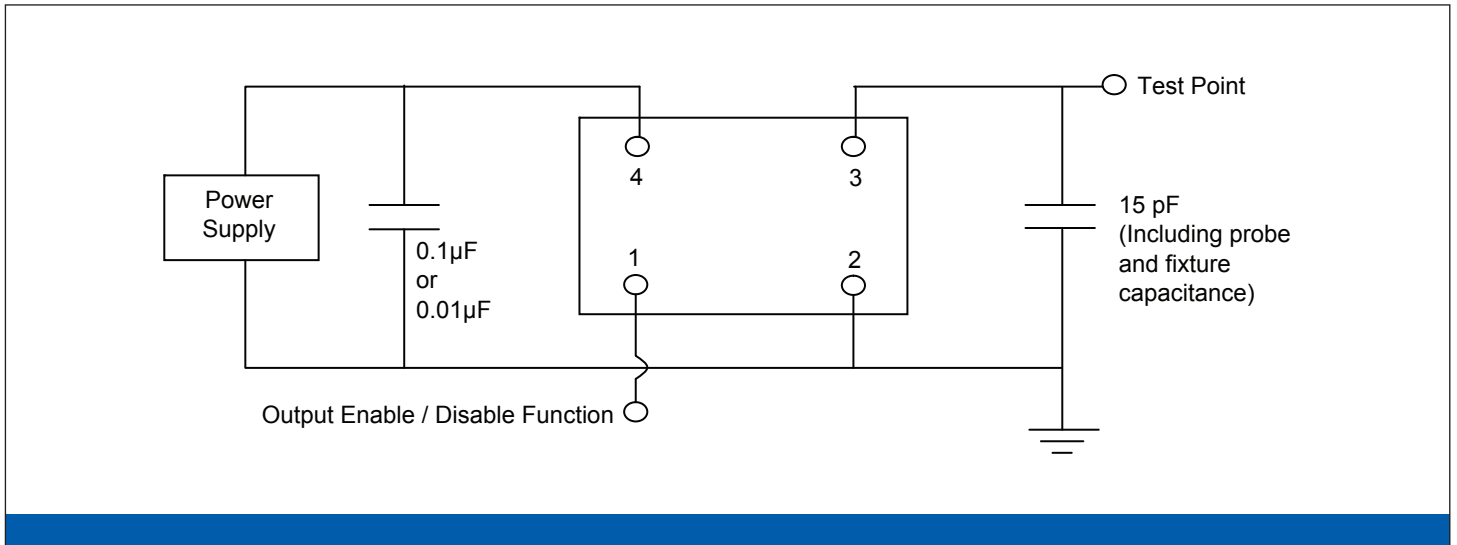
**Typical Output Waveform (75 MHz output)**



### Absolute Maximum Ratings

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

### Test Circuit

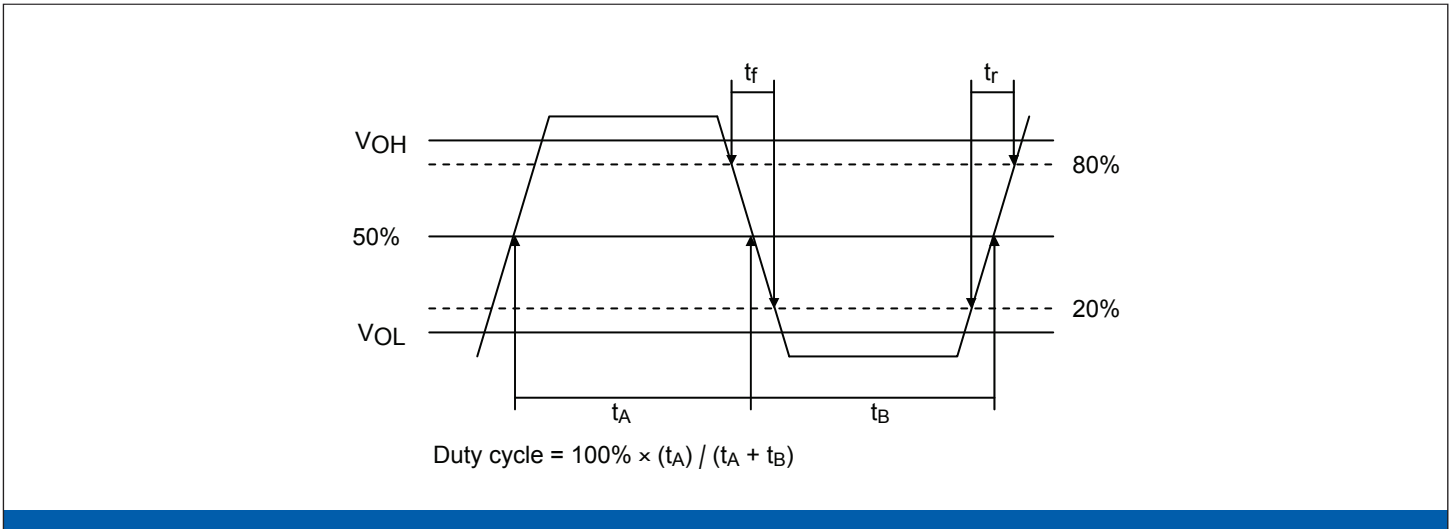


### Reliability Test Ratings

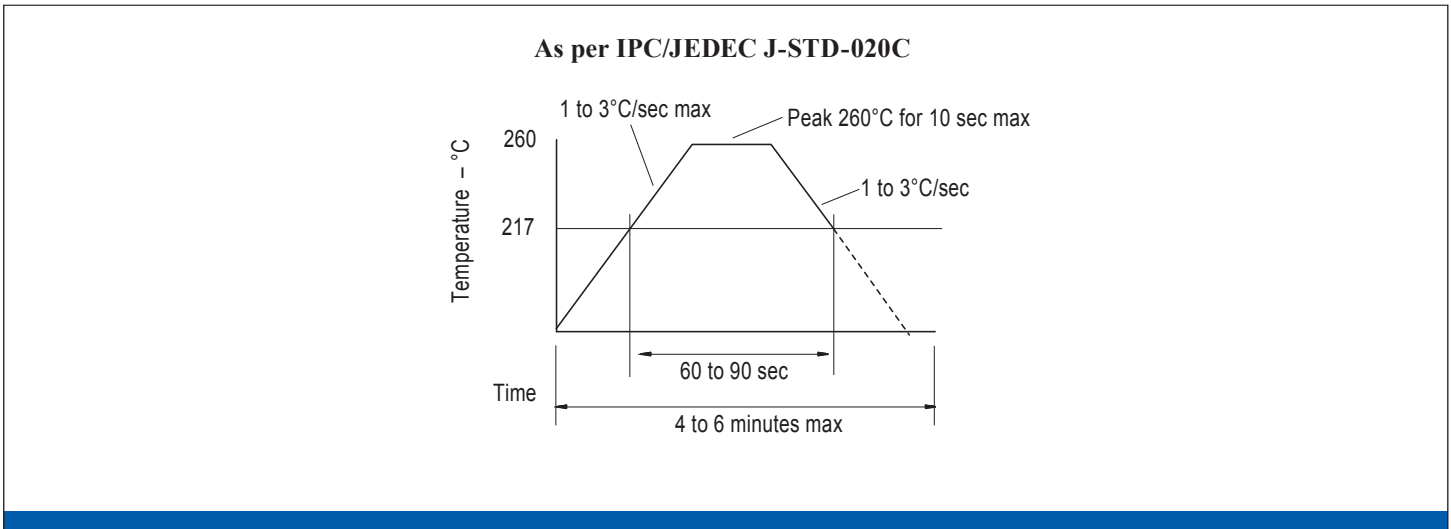
This product is rated to meet the following test conditions:

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)

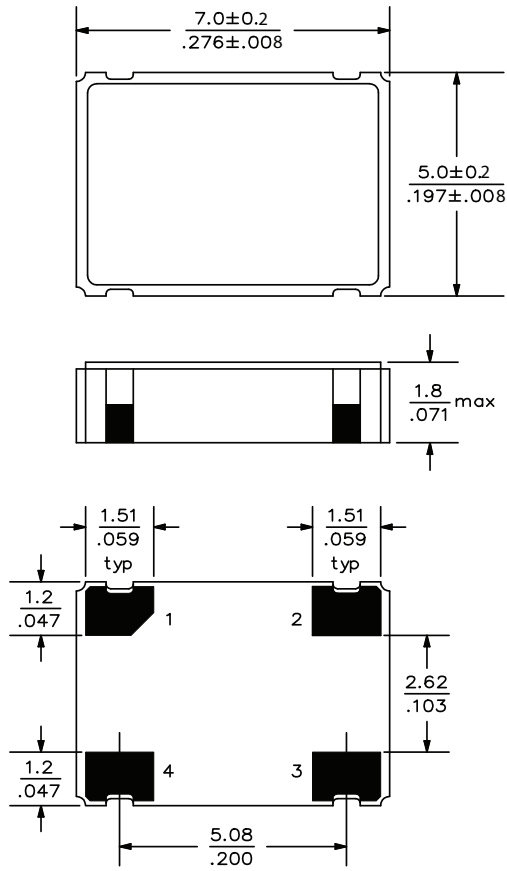
**Output Waveform**



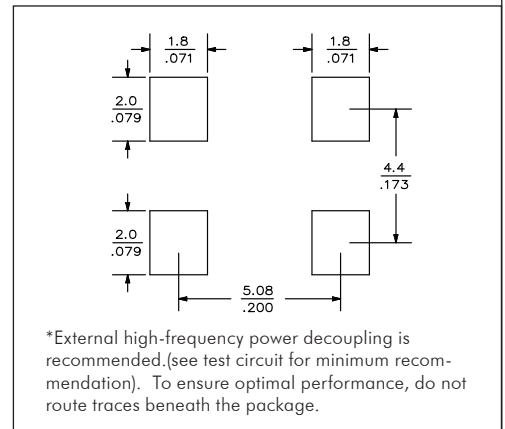
**Reflow Soldering Profile**



### 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.

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