

Electrical Performance

Parameter	Min.	Typ.	Max.	Units	Notes	Notes
Output frequency		1.5440		100	MHz	As specified
Supply voltage		1.71	1.8	1.89	V	
Supply current, output enabled				4	mA	1.5440 to <36 MHz
				7		36 to <50 MHz
				10		50 to <70 MHz
				20		70 to 100 MHz
Standby current				10	μA	1.5440 to <36MHz
				100	uA	36 to 100MHz
Frequency stability				±25 to ±50	ppM	See Note 1 below
Operating temperature		-40		+85	°C	As specified
Output logic 0, VOL				10% V _{DD}	V	
Output logic 1, VOH		90% V _{DD}			V	
Output load				15 pF (max)		
Duty cycle		45		55	%	measured 50%VDD
Rise and fall time	<36 MHz			4	ns	measured 20/80% of waveform
	36 to 100 MHz			2.5		
Jitter, Phase	up to 75 MHz			1.5	ps RMS (1-σ)	10kHz to 20 MHz frequency band
	75 to 100 MHz			1		
Jitter, Accumulated	up to <75 MHz			5	ps RMS (1-σ)	20.000 adjacent periods
	75 to 100 MHz			3		
Jitter, Total	up to <75 MHz			50	ps pk-pk	100.000 random periods
	75 to 100 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.

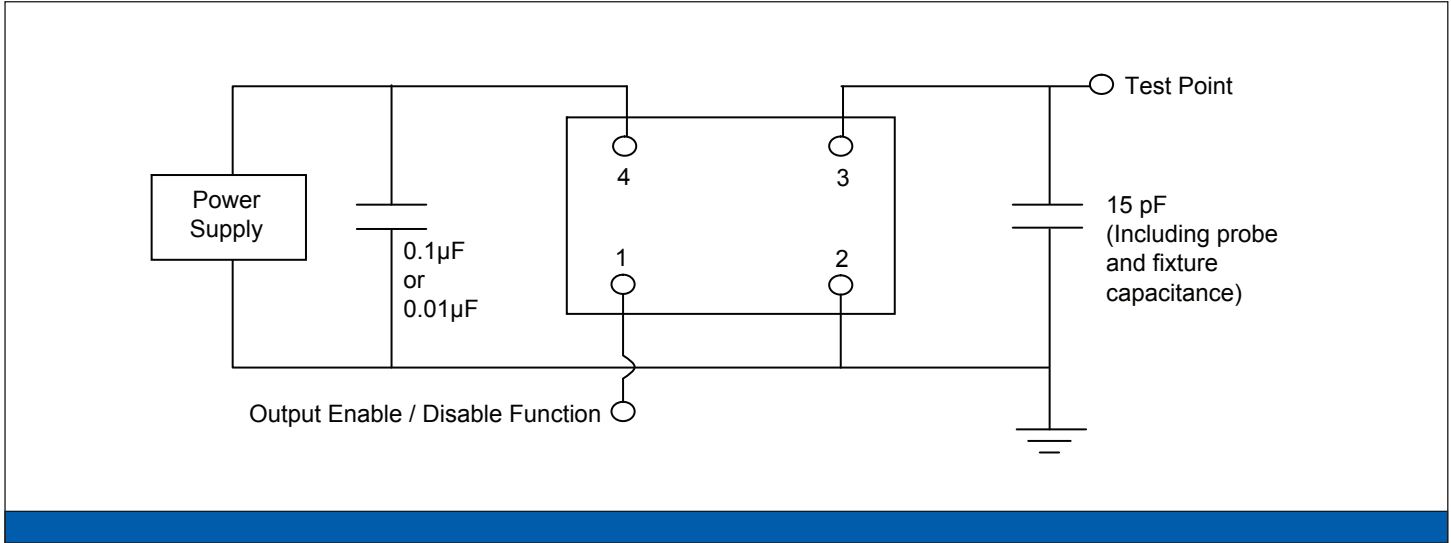
Output Enable / Disable Function

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

Absolute Maximum Ratings

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

Test Circuit

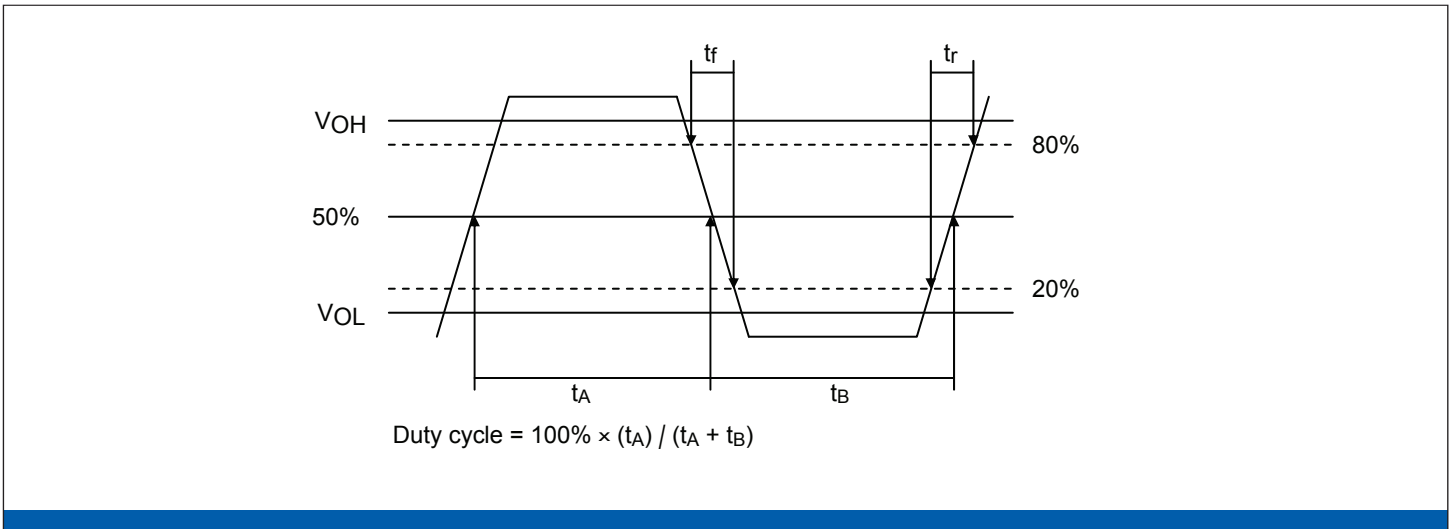


Reliability Test Ratings

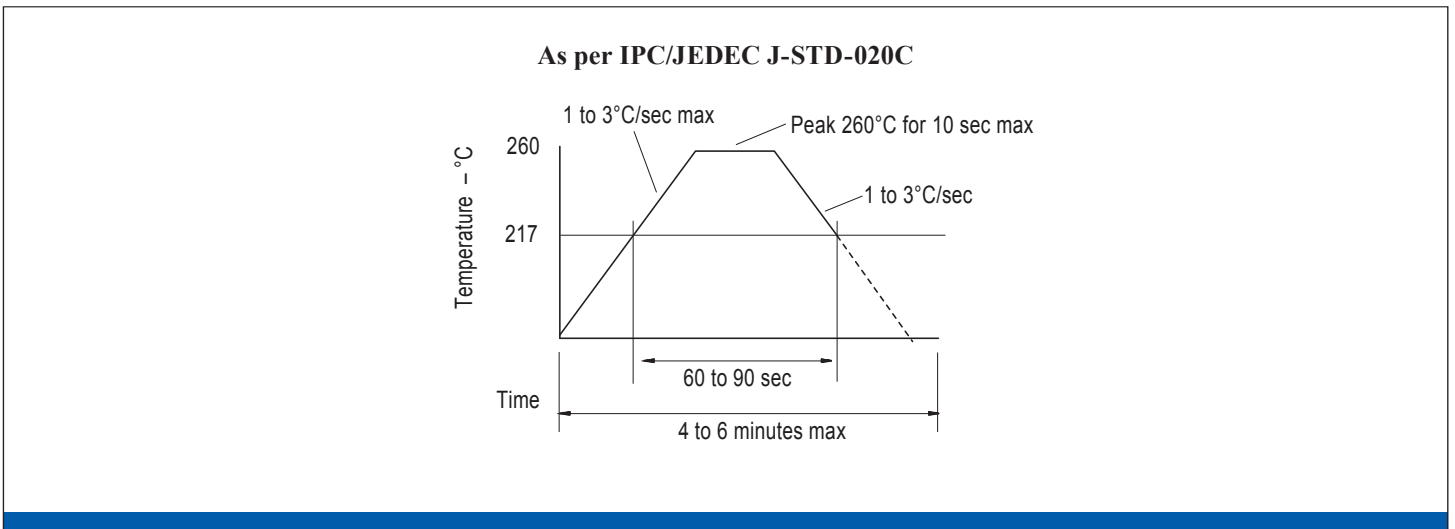
This product is rated to meet the following test conditions:

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)

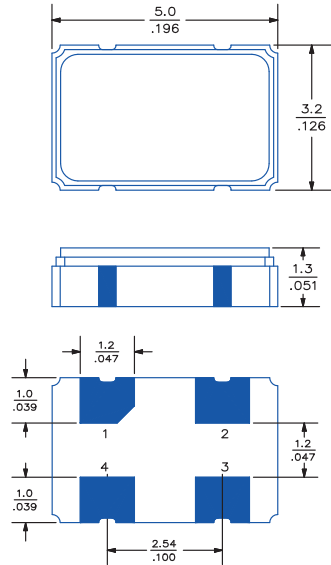
Output Waveform



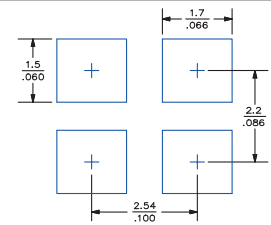
Reflow Soldering Profile



Mechanical Drawing:



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.