

ACT9213 LVPECL OSCILLATOR

The ACT9213 LVPECL Oscillator is a miniature low profile device allowing for frequencies up to 350.0MHz to be available in a 7x5 mm SMD package. The metal lid is grounded through the ceramic package and the pads are gold plated. This device is particularly suited to Communications / Networking applications and also to many other applications where a low voltage LVPECL output is required. Only 7x5mm this device is particularly popular where board space dictates small size and / or automatic assembly is a requirement. The devices are available loose or taped and reeled to suit both low and higher volume requirements.



Specification

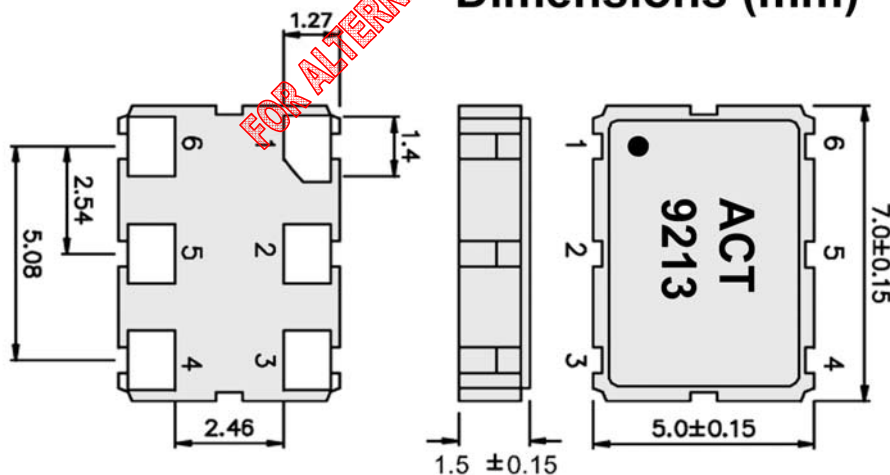
Parameter	Symbol	Specification	Condition
Frequency Range	fo	40 ~ 350MHz	Please specify
Frequency Stability	$\Delta f/fo$	$\pm 20 \sim \pm 100$ ppm max *	Please specify
Temp Operating Range	Top	-40 ~ +85°C standard	Others available please enquire
Temp Storage Range	Tstg	-55 ~ +125°C	
Supply Voltage	Vdd	3.3V (3.17V Min, 3.47V max)	
Supply Current (max)	Iop	99mA	
Duty Cycle	Tw/t	50% \pm 10%	
Output Level '0'	VOL	fo<160MHz Vdd-1.62Vmax fo>160MHz Vdd-1.7V max	
Output Level '1'	VOH	fo>160MHz Vdd-1.025Vmin fo>160MHz Vdd-1.4V min	
Rise & Fall Time (max)	Tr/Tf	0.5ns typical 1.0ns max	20-80% output Voltage
Output Load	N/CL	RL 50 Ω to Vdd - 2V	
Start-up Time	Tosc	5ms max	Within ± 0.5 ppm of fo & power to 90% final amplitude
Aging	Fa	± 3.0 ppm/yr max	
Output Enable Function		Pin 1	
Enable Voltage high	Venh	2.4V min Vdd max	
Enable Voltage low	Venl	Ground min 0.8V max	
Standby Current	Isb	10 μ A max	OE low
Phase Jitter	Tj	1.0ps	12kHz to 20MHz

* Inclusive of 25°C Tolerance, Operating temperature stability, Vdd, Output load, first year aging, shock and vibration

Standard frequencies MHz :

77.76	156.25
106.52	187.50
125.00	212.50
155.52	

Dimensions (mm)



Lead free - RoHS comp.

Pad surface plating Au 0.7-1.2 μ m

Pin Functions:

- 1: OE
- 2: No Connection
- 3: Ground
- 4: Output
- 5: Complementary output
- 6: Vdd

Please note that all parameters can not necessarily be specified in the same device
 Customer to specify :Frequency, Frequency Stability, Operating Temperature Range

In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

ISO9001:2000 Registered

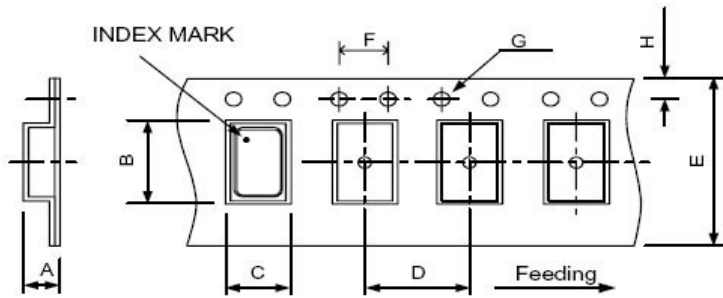
For quotations or further information please contact us at:

3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK

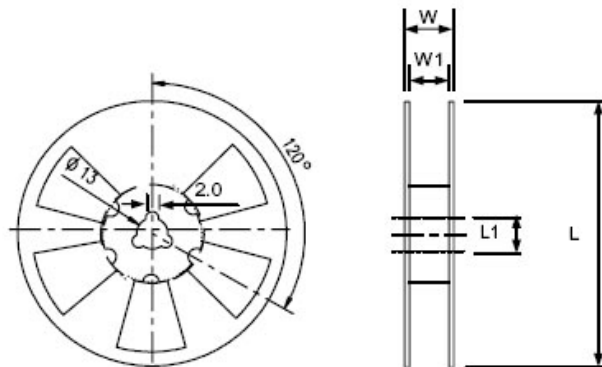
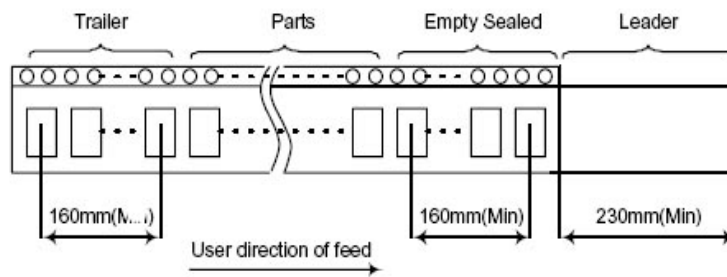
<http://www.actcrystals.com>

Issue : 1 T6
 Date :16/08/05

ACT9213 TAPE AND REEL DIMENSIONS (mm)

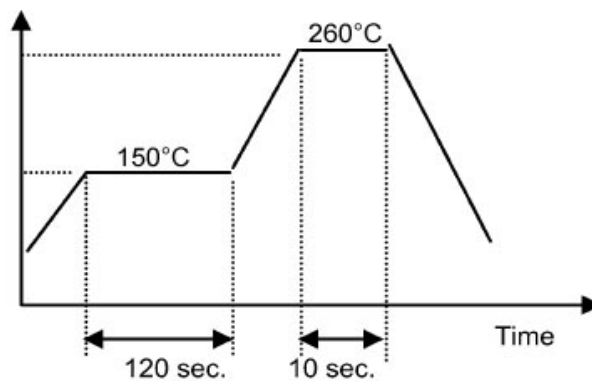


DIMENSIONS	A	B	C	D	E	F	G	H	(UNIT : mm)
	2.00	7.90	5.45	8.00	16.00	4.00	1.50	1.75	



DIMENSIONS	L	L1	W	W1	pcs / Reel (UNIT : mm)
	180	13	20.5	16	Standard Reel Quantity is 1,000 pcs per reel

Maximum Re-flow Conditions



Total time : 200 sec. Max.

In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

ISO9001:2000 Registered

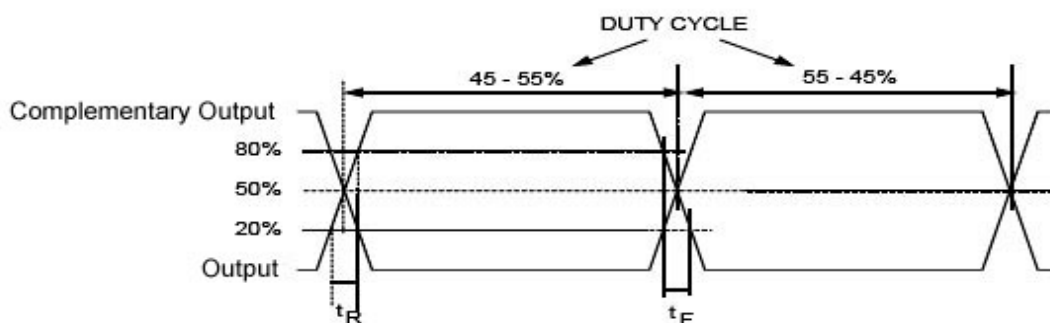
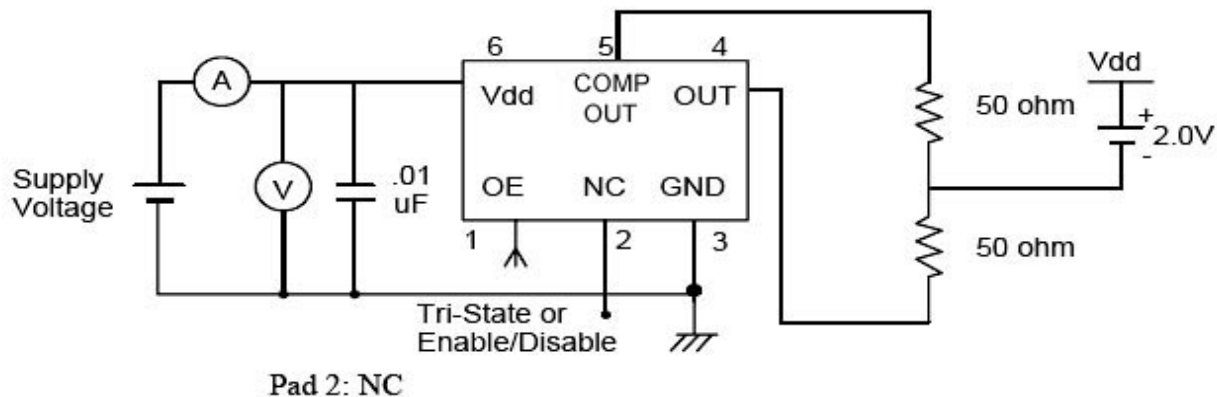
For quotations or further information please contact us at:
 3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK

<http://www.actcrystals.com>

Page 2 of 3

Issue : 1 T6
 Date :16/08/05

ACT9213 Test Circuit and Waveform



In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

ISO9001:2000 Registered

For quotations or further information please contact us at:
 3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK
<http://www.actcrystals.com>

Issue : 1 T6
 Date :16/08/05