

ACT9214 LVDS OSCILLATOR

The ACT9214 LVDS 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 LVDS 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.



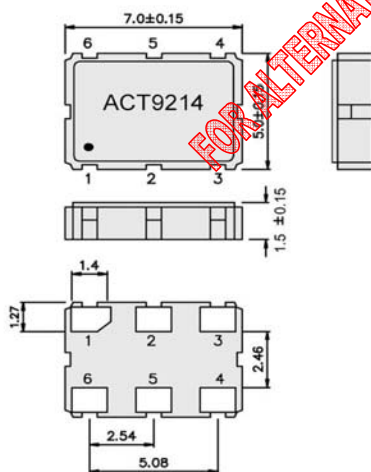
Specification

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	-20 ~ +70°C Standard	Others available please enquire
Temp Storage Range	Tstg	-55 ~ +125°C	
Supply Voltage	Vdd	3.3V (2.375V Min) 2.5V (3.465V max)	Please specify
Supply Current (max)	Iop	99mA (85mA typical)	
Duty Cycle	Tw/t	50% \pm 10%	Ta 25°C
Output Level '0'	VOL	1.1V typical	
Output Level '1'	VOH	1.43V typical	
Rise & Fall Time (max)	Tr/Tf	2.0ns max	
Output Load	N/CL	100 Ω	Refer to test circuit on page 3
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	0.7Vdd min	
Enable Voltage low	Venl	0.3Vdd max	
Standby Current	I _{sb}	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

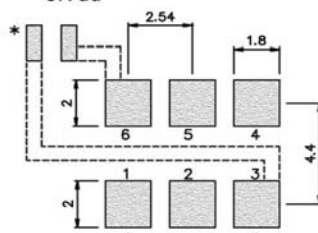
106.25	156.25
125.00	187.50
155.52	212.50



Dimensions (mm)

Pin Functions:

- 1:OE
- 2:NC
- 3:GND
- 4:OUT
- 5:OUT } see waveform page3
- 6:Vdd



* :External high frequency power supply decoupling required.

Lead free - RoHS comp.

Pad surface plating Au 0.7-1.2 μ m

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

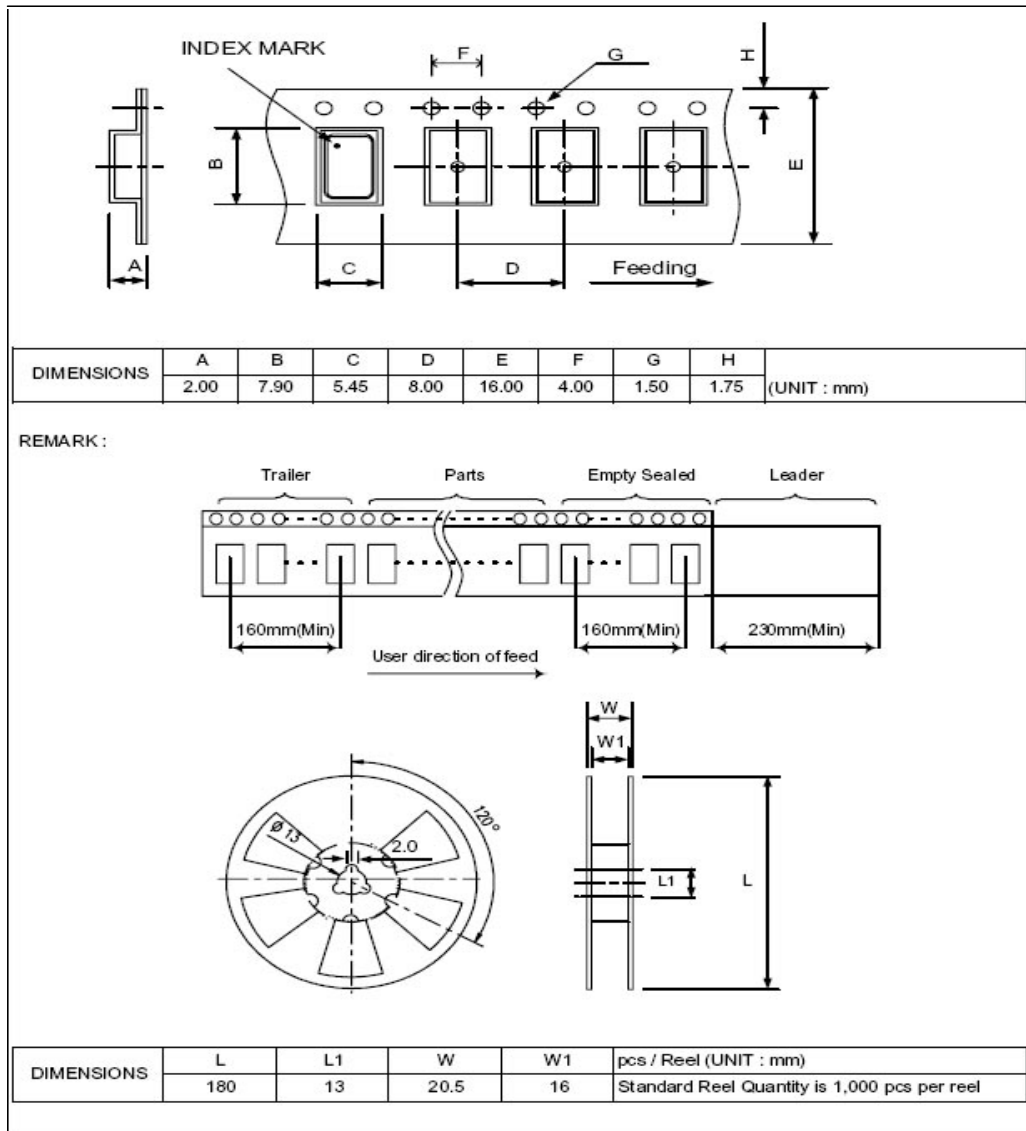
In line with our ongoing policy of product evolution and improvement, the above specification may subject to change without notice

ISO9001:2000 Registered

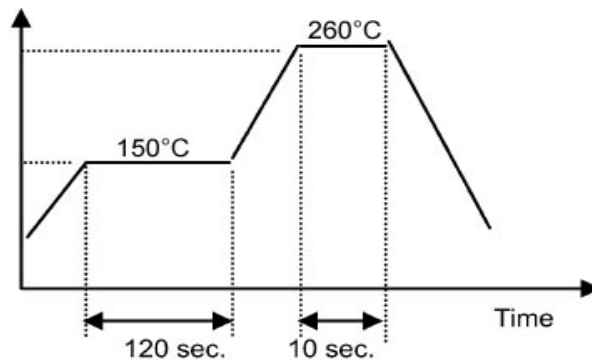
For quotations or further information please contact us at:
 3 The Business Centre, Molly Millars Lane, Wokingham, Berks, RG41 2EY, UK
<http://www.actcrystals.com>

Issue : 1 T6
 Date : 16/08/05

ACT9214 TAPE AND REEL DIMENSIONS (mm)



Maximum Re-flow Conditions



Total time : 200 sec. Max.

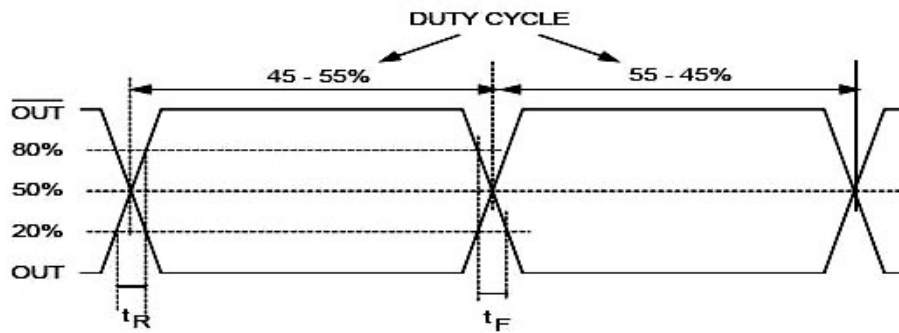
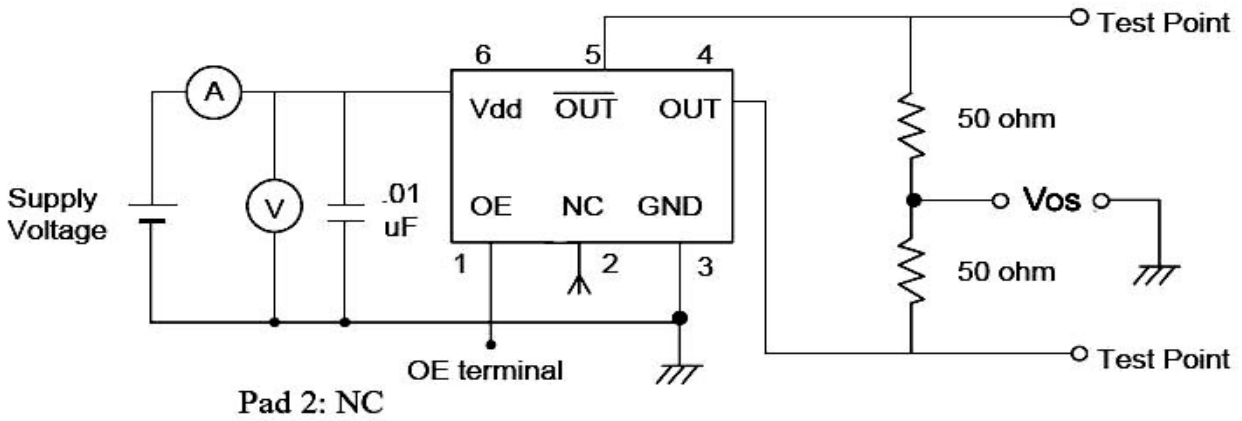
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ACT9214 Test Circuit and Waveform



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