

Compatible with Eu Directive
 2002/EC - RoHS

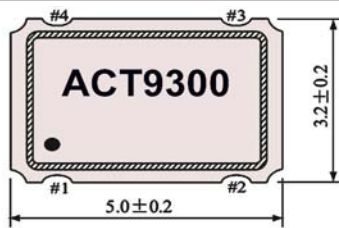
ACT9300

The ACT9300 family is a miniature low profile Surface Mount package, housed in a ceramic leadless chip carrier with a seam welded metal lid for high reliability and long term stability. The metal lid is grounded via the package to assist with EMI emission control. This 5x3.2mm packaged device is available in 1.8 ~ 5.0 volt supply voltages and is suitable for a wide range of applications. Taped and reeled packaging and loose quantities are available for purchase, to suit high and low volume requirements. The pads are gold plated on all surfaces to allow a variety of assembly processes, including wire bonding. The device is TTL/HCMOS compatible.

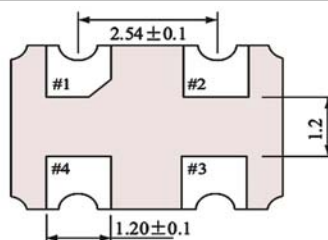


Specification

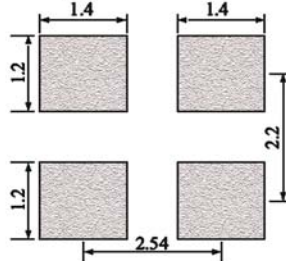
Parameter	Symbol	Specification				
Supply Voltage	VDD	1.8VDC±10%	2.5VDC±10%	3.3VDC ±10%	5.0VDC±10%	Please specify
Frequency Range	fo	1.544 to 125.000MHz				Please specify
Frequency Stability	Δf/fo	±25, ±50 or ±100ppm (±15ppm please enquire)				Please specify
Temp Operating Range	Topr	0 ~ +70°C (-20 ~ 70°C, -40 ~ +85°C option)				Please specify
Temp Storage Range	Tstg	-55 to +125°C				
Supply Current (max)	Iop					
		1.544 to 9.999MHz	6mA	7mA	8mA	15mA
		10.000 to 34.999MHz	7mA	8mA	10mA	20mA
		35.000 to 49.999MHz	15mA	20mA	25mA	35mA
		50.000 to 125.000MHz	25mA	30mA	35mA	40mA
Rise & Fall Time (max)	TrTf	5nS	6nS	7nS	5nS	
Duty Cycle	Tw/t	40/60% (Options 45/55% & 47.5/52.5%) @ 1 / 2 Vdd				Please specify
Output Level '0'	VOL	10% VDD max (HCMOS)				
Output Level '1'	VOH	90% VDD min (HCMOS)				
Output Load	N/CL	30pf Max (15pf typ)				
Start-up Time	Tosc	10mS max				
Tri-state Input Voltage	No Connection	Enable output				
	VIH : ≥90% of VDD	Enable output				
	VIL : ≤10% of VDD	Disable output : High Impedance				
Aging	Fa	5 ppm per year. max @25°C				
Reflow Profile		10 secs @ 260°C Max				
Period Jitter (Absolute)	Tj	100ps (Max)				
Period Jitter (one sigma)	Tj	25ps (Max)				



Dimensions (mm)



Suggested Footprint



Pin Connections
 #1 Iate / NC
 #2 Ground
 #3 Output
 #4 Vdd

It is recommended that a 0.01μF decoupling capacitor be connected between #2 and #4 to minimise power supply noise.

Pad surface material
Au

APPLICATIONS: -Microprocessor clock, -PDA/Notebook, -Wireless applications, -Audio, -Gigabit ethernet -Fibre channel, Instrumentation

Please note that all parameters can not necessarily be specified in the same device

Customer to Specify : Frequency, Frequency Stability, Operating Temperature Range, Output Type, Output enable, Voltage, Duty Cycle
 In line with our ongoing policy of product evolution and improvement, the above specification may be subject to change without notice.

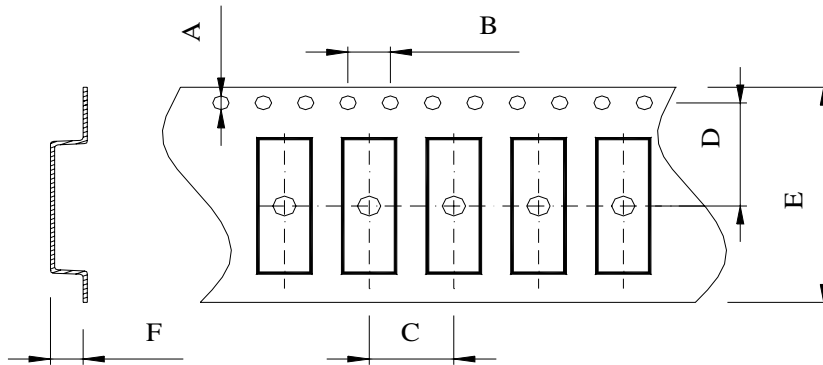
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For quotations or further information please contact us at:

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

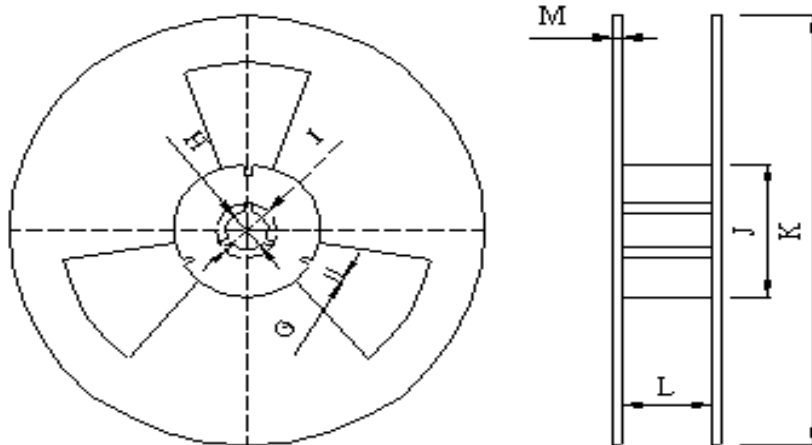
<http://www.actcrystals.com>

ACT9300 TAPE DIMENSIONS (mm)



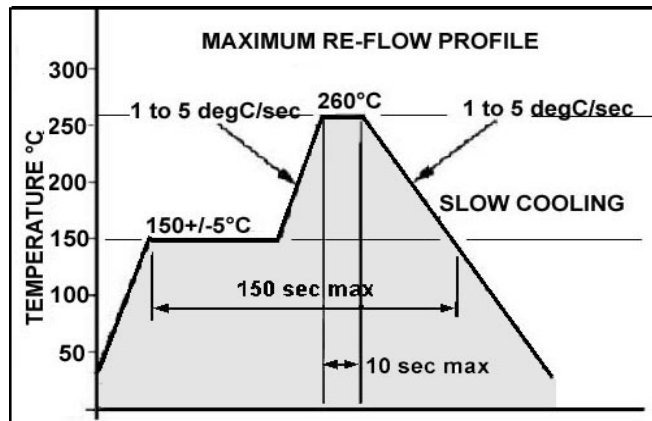
A	B	C	D	E	F
1.5	4.0	8.0	5.5	12.0	1.5

ACT9300 REEL DIMENSIONS (mm) 1000 Piece Reels



G	H	I	J	K	L	M
2.5	13.5	21.6	60.0	178.0	13.5	1.6

REFLOW CONDITIONS



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