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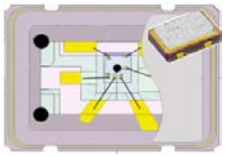
9300

ACT 9300 HCMOS 5x3.2mm SPXO

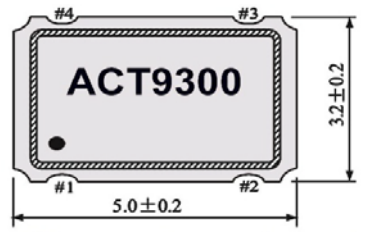
RoHS



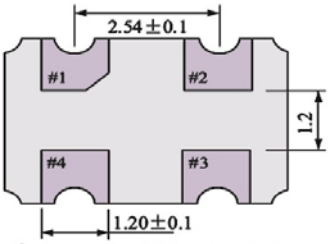
- Stability: ±25, ±50 & ±100ppm (±15ppm option, enquire)
- Supply: 1.8V, 2.5V, 3.3V & 5.0V
- Load 30pF HCMOS max

Characteristics	
Frequency Range (MHz)	1~133 (1~100 : 5V Vcc)
Supply voltage ±5% Vcc (V_{DC})	1.8V, 2.5V, 3.3V & 5.0V
Operating Current mA max	Table 1
Operating temperature Top (°C)	Table 2
Stabilty all causes*	Table 2
Aging @25°C (ppm)	±5
Load ±10%	30pF max. 15pF typ
Output voltage	VOL 10% Vcc max, VOH 90% Vcc min
Duty Cycle	40/60% (45/55% & 47.5/52.5% options)
Start up time	10ms max
Rise/fall times ns	Table 1
Jitter	Table 3
Rating	
Storage temperature (°C)	-55 ~ 125
MSL	1 unlimited
ESD	Take appropriate precautions

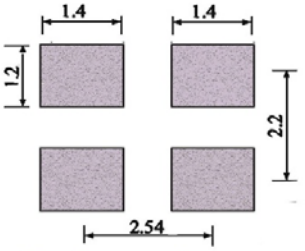
Notes:
*Stability all causes : Tolerance+Stability over temperature+
Aging, 1st yr + Load +Vcc + Shock + Vibration
A 0.01µF decoupling capacitor between pads 2 and 4 is recommended.



Dimensions (mm)



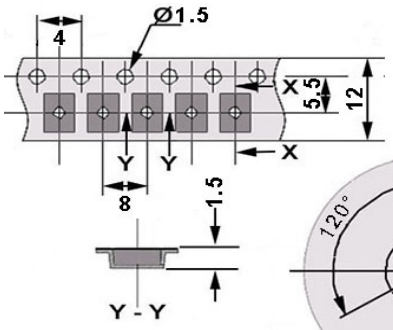
Suggested Footprint



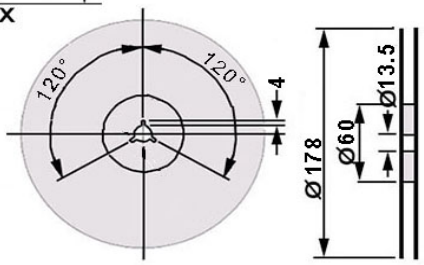
Pin Connections

#1 Tri state #3 Output
#2 Ground #4 Vdd

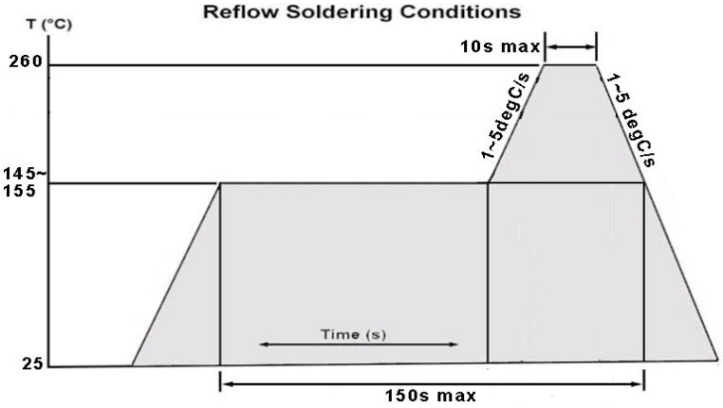
Table 2	Available stabilities (all causes ppm)				
Temperature °C	±15	±25	±30	±50	±100
0 ~ 70	Enquire	✓	✓	✓	✓
-20 ~ 70	Enquire	✓	✓	✓	✓
-40 ~ 85		Enquire	✓	✓	✓



Tape & Reel Dimensions (mm)



Reflow Soldering Conditions



Please note that all parameters can not necessarily be specified in the same device.
To specify: Please refer to part numbering system appended to the end of this data
ISO9001 Registered
For quotations or further information please contact us at:
3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY
Issue No. 8 H2 Date: 18/11/2013

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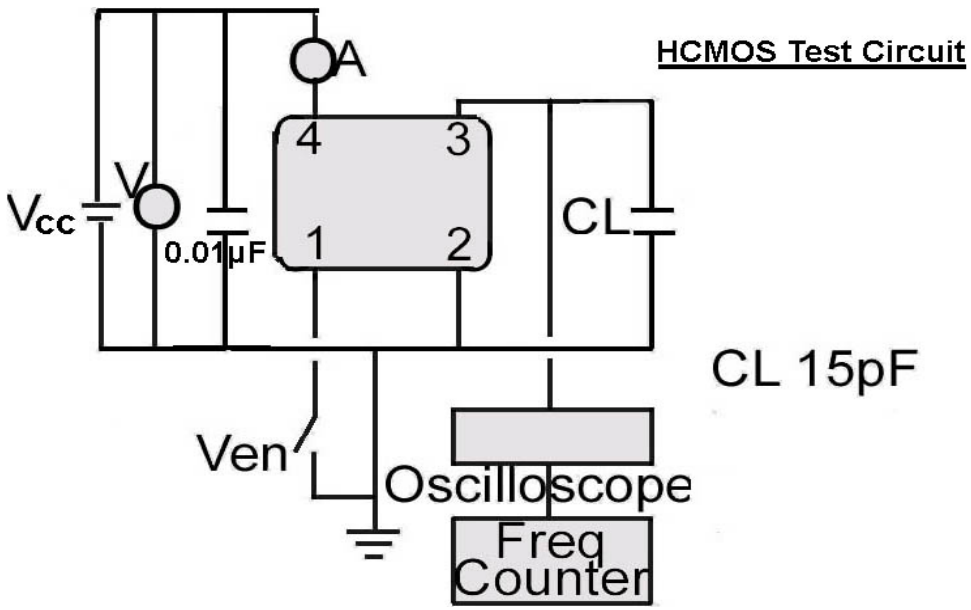
Table 1	Operating current (mA max) Vcc (V_{DC})			
Frequency MHz	1.8V	2.5V	3.3V	5.0V
1.544~9.999	6	7	8	15
10~34.999	7	8	10	20
35~49.999	15	20	25	35
50~ 125	25	30	35	40
	Rise & Fall times (ns Max)			
All	5	6	7	5

Table 3	Jitter (ps)			
	Period Jitter		Phase Jitter	
Frequency MHz	pk-pk	rms	12kHz~20MHz	TJ rms
1.00	100max	25max	- - -	- - -
25.00	15.47 typ	1.79typ	- - -	- - -
80.00	5.58typ	0.86typ	0.105typ	0.911typ



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OCILLATOR PART NUMBERING

SV	2700	D	E	E	S	E	P	C	-PF
9300	27.00MHz	±15 ppm	1.8 V_{DC}	0~70 °C	40/60 %/%	HCMOS Output	YES Tristate	1K Reel Packing	RoHS

9300	SV

Stability all cause ±ppm	
15	D
25	C
30	H
50	B
100	A
Table 2	

T_{OP} °C	
0~70	E
-20~70	B
-40~85	I
Table 2	

Output	
HCMOS	E
Universal HCMOS/TTL	J

V_{CC} V_{DC}	
1.8	D
2.8	G
3.3	B
5.0	A

Tristate	
Tristate	P

If tristate is not required then leave pad 1 disconnected

Duty Cycle % / %	
40/60	S
45/55	H
47.5/52.5	I

Tape & Reel	
1K Reel	C
Loose	L

Commodity code

Frequency <1.8 or >67MHz
854370 90 99

Frequency between 1.8 and 67 MHz
854370 90 45

Standard

Frequency:
For part numbering use the first 4 characters of the frequency in Hz ie 27MHz = 27000000Hz so the code used in the part number is 2700. If the frequency is 100MHz or higher then the first 5 characters are used.
It is important to suffix the part number generated above with the actual frequency to give the full part number as illustrated below.

SV-2700DEESEPC-PF 27.000MHz

Table 2	Available stabilities (all causes ppm)				
Temperature °C	±15	±25	±30	±50	±100
0 ~ 70	Enquire	✓	✓	✓	✓
-20 ~ 70	Enquire	✓	✓	✓	✓
-40 ~ 85		Enquire	✓	✓	✓