

ACT Series : **ACT1100 standard (Full size DIL 14 Package)**
ACT1700 standard (Half size DIL 8 Package)

Through hole type Crystal Oscillator

RoHS Compliant v

Output type: HCMOS, TTL

Features

- Supply Voltage 3.3V, 5.0V
- Excellent range of frequency stability available over temperature range.
- RoHS and Pb free compliant.
- For stability below ± 20 ppm, please enquire or refer to ACT1100HS and ACT1700HS series.
- Metal hermetically sealed welded package.



Specifications

Parameters		Specification	Remarks
Frequency Range (MHz)	F_o	0.25MHz to 180.00MHz	
Frequency Stability all causes	T_c	± 25 ppm, ± 30 ppm, ± 50 ppm, ± 100 ppm	Includes room temp. Tol + stability over temp.range + 1yr aging + Load + Vcc + Shock + Vibration ; Table 2
Stability Temp. Range (°C)	T_{opr}	0 to +70°C, -10 to +70°C, -20 to +70°C, -40 to +85°C	
Storage temperature (°C)	T_{stg}	-55 to +125°C	
Supply voltage	Vdd	5.0V, 3.3V	
Output Wave Form		HCMOS, TTL	See available options on page 2.
Output Load		15pF, 30pF and 50pF, 10TTL	
Output Logic High "1"	V_{OH}	TTL 2.4V min ; HCMOS:Vdd*0.9	
Output Logic Low "0"	V_{OL}	TTL 0.4V max ; HCMOS:Vdd*0.1	
Rise Time (Tr)	T_r	5ns max	
Fall Time (Tf)	T_f	5ns max	
Duty Cycle		45/55%	
Current Consumption	I_{cc}	Table 1	
Start - Up Time (Ts)	t_{str}	10ms Max	
Aging	f_a	± 3.0 ppm/Year max.	@ 25°C
MSL / ESD		1 Unlimited / Take appropriate precautions	

Table: 1 Current Consumption

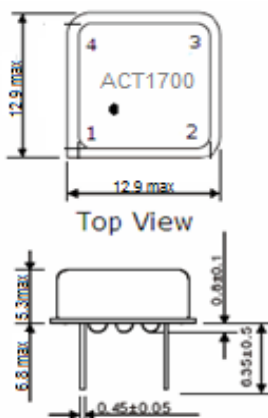
Frequency Range	Vdd =5V	Vdd =3.3V
0.25MHz ~ 9.999MHz	15mA	10mA
10.00MHz~23.999MHz	15mA	10mA
24.00MHz~49.999MHz	30mA	20mA
50.00MHz~79.999MHz	40mA	20mA
80.00MHz~156.00MHz	50mA	30mA

Table: 2 Stability all cause vs Operating temp. Range

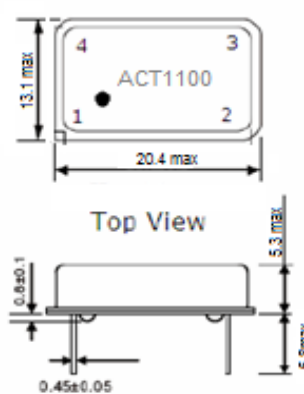
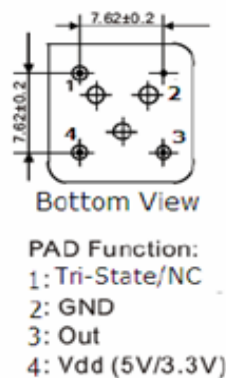
Temperature (°C)	± 25	± 30	± 50	± 100
0 ~ 70°C	✓	✓	✓	✓
-10 ~ 70°C	✓	✓	✓	✓
-20 ~ 70°C	✓	✓	✓	✓
-45 ~ 85°C	✓	✓	✓	✓

For stability below ± 20 ppm, please enquire or refer to ACT1100HS and ACT1700HS series.

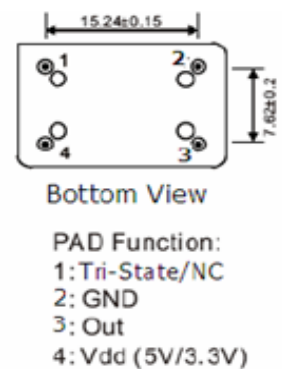
Dimensions: (Unit:mm)



ACT1700 (Half size DIL 8 Package)



ACT1100 (Full size DIL 14 Package)



ACT Series : ACT1100 standard (Full size DIL 14 Package)
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How to Order Part

CL	2700	E	B	I	H	E	P	L	-PF																																																																				
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Notes:

- = Standard specification are shown in colored boxes.
- Many other specification options are available; please enquire.
- Commodity code

Frequency	Code
1.8<f<67MHz	8543709045
f<1.8 or >67MHz	8543709099
- For part numbering use the first 4 digits of frequency, If frequency 100MHz or higher then the first 5 digits are used. Please specify complete frequency in bracket after part number in case frequency has decimal value.
- Part Number example. For 27MHz - CL2700EBIHEPL-PF

Marking:

ACT wy
 Frequency

w Week code
 y Year code

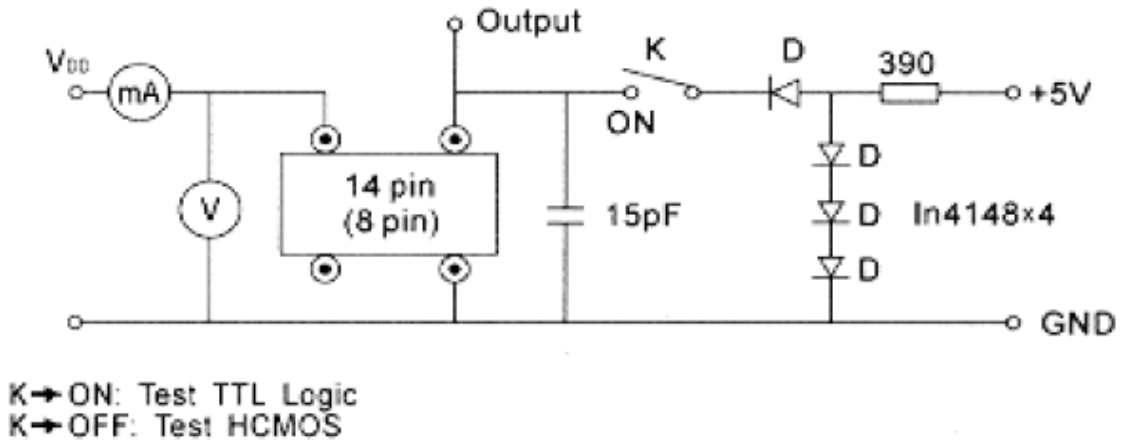
Frequency: First four digit

Pin1 • SCL

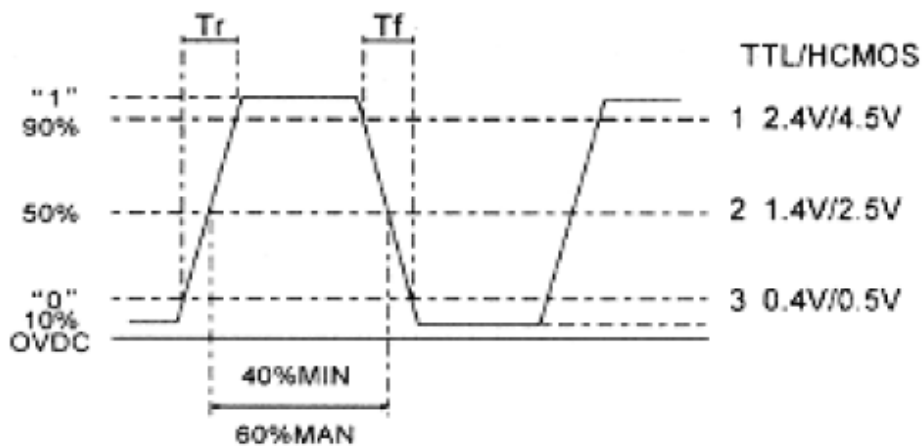
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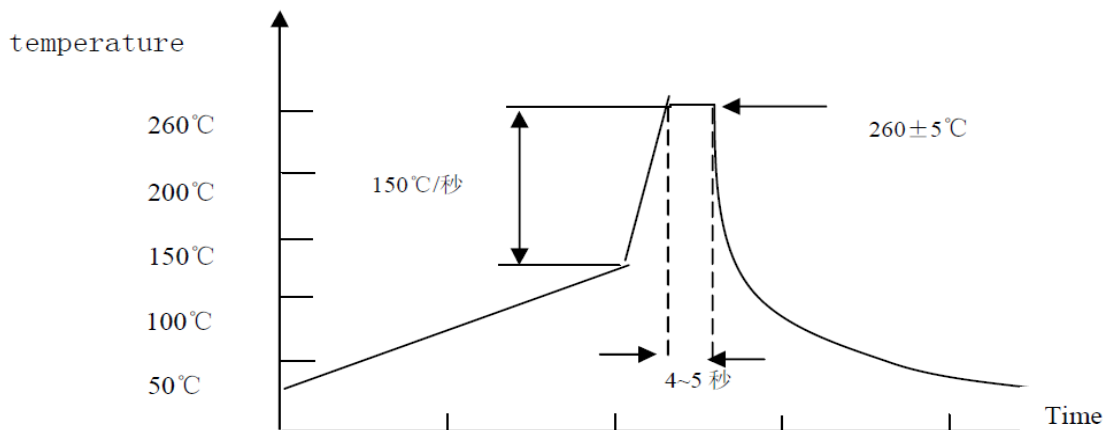
Circuit Diagram



Output Wave Form



Wave Soldering Profile



In line with our on going policy of product evlment and improvement, the above specification is subject to change without notice.