

5Vdc or 3.3Vdc • MINIATURE CERAMIC SURFACE MOUNT • HCMOS OR TTL

PROGRAMMABLE CLOCK OSCILLATORS

ASFP and ASFLP



5.0 x 3.2 x 1.6 mm

FEATURES:

- Wide range of frequency up to 133MHz using PLL technology.
- Quick delivery within one to five days for small quantities.
- Ultra miniature low profile SMD 5.0x3.2x1.6mm package.
- Reflow soldering.
- Tristate E/D or Stand-By function.
- Hermetically seam welded.

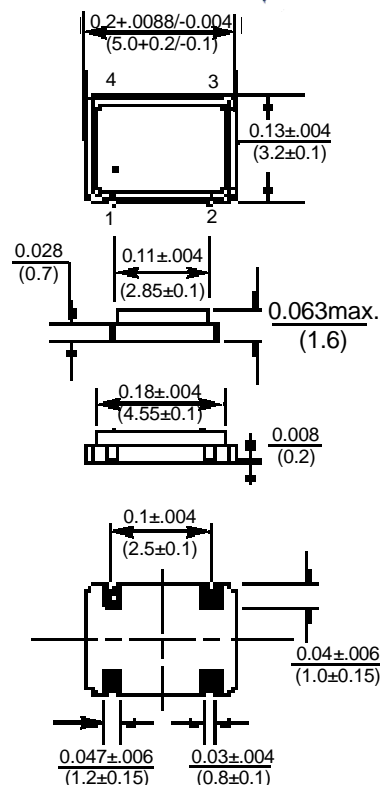
1 to 5
Day Lead
Time

APPLICATIONS:

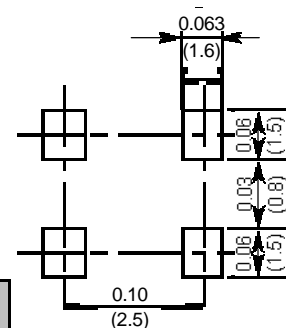
- Clocks for a wide range of applications.

STANDARD SPECIFICATIONS

PARAMETERS	ASFP	ASFPT	ASFLP
Frequency Range (F _o)	1.00MHz - 133MHz		1.00MHz - 106.25MHz
Operating Temperature (T _{OPR})	-20°C to +70°C (See Options)		
Storage Temperature (T _{STO})	-55°C to +125°C		
Frequency Stability (ΔF/ F _o)	±50ppm max. (See Options)		
Supply Voltage (V _{dd})	5.0Vdc ±10%		3.3Vdc ±10%
Input Current (I _{dd})	45mA max.		25mA max.
Duty Cycle or Symmetry	45/55% max.at 1/2 VDD	45 / 55% max.at 1.4 VDC	45/55% max.at 1/2 VDD
Rise and Fall Times (T _R / T _F)	4ns max.		
Output Load	50pFmax.(F ≤66MHz) 25pFmax.(F ≤66MHz)	5TTL	30pFmax.(F ≤40MHz) 15pFmax.(F ≤40MHz)
Output Voltage (V _{OH}) (V _{OL})	0.9 *V _{dd} min. 0.4V max.	2.4V min. 0.4V max.	0.7 *V _{dd} min. 0.2 *V _{dd} max.
Start-up Time (T _{osc})	10ms max.		
Tristate (OE) Function	V _{IH} : 2.0V min. V _{IL} : 0.8V max.	Oscillation Hi Impedance	V _{IH} : 0.7*V _{DD} min. V _{IH} : 0.2*V _{DD} max.
Disable current OE (I _{DIS})	30mA max.		15mA max.
Stand-By current (option B)(I _{STB})	50μA max.		20μA max.
Jitter Peak to peak	±250ps max. for F ≤ 40MHz, ±90ps typ. ±100ps max. for F > 40MHz, ±50ps typ.		±250ps max. for F ≤ 40MHz, ±90ps typ. ±100ps max. for F > 40MHz, ±50ps typ.
RMS One sigma	±50ps max. for F ≤ 40MHz, ±25ps typ. ±30ps max. for F > 40MHz, ±15ps typ.		±50ps max. for F ≤ 40MHz, ±25ps typ. ±40ps max. for F > 40MHz, ±20ps typ.



Recommended land pattern



* Pin 1 has internal pull-up resistor which allow Pin 1 to be left floating (enable high).
 Connect a By-Pass capacitor 0.01 μF between V_{dd} and GND.
 Environmental and mechanical specifications see appendix C. Group 2.
 Test circuit, waveforms, see appendix B. Reflow profile, see appendix E.
 Tape and Reel, see appendix H.(1,000 pcs./reel).
 Marking, see appendix G. Application notes, see appendix A.

Pin	Function
1	OE or PD
2	GND
3	Output
4	V _{dd}

ORDERING OPTIONS

ASFXPX - Frequency - Temperature - Overall Frequency Stability - Stand By - Packaging

Blank
or L

XXX.XXX MHz

-F for -30°C to +70°C
 -N for -30°C to +85°C
 -L for -40°C to +85°C

-J for ± 20ppm max.*
 -R for ± 25ppm max.*
 -K for ± 30ppm max.
 -H for ± 35ppm max.

-B

T for Tape and Reel

Dimensions: Inches (mm)

* Standard temperature only.
 Please call us for other tighter spec.

ABRACON IS
 ISO 9001 / QS 9000
 CERTIFIED

NOTE: Left blank if standard • All specifications and markings subject to change without notice

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