

ECS-8F

Our ECS-8F series is compatible with both TTL and HCMOS technologies. The J-leaded configuration and high resistance to soldering temperature make it ideal for surface mount production processes. The 8F offers the low power consumption of HCMOS, but will drive a full 10 TTL Gates when used in a TTL application. This part is built to withstand vapor phase and other high temperature soldering operations and to give long term outstanding performance and reliability.

FEATURES

- Extended Temperature Range
- Solderable @ 260° for 10 sec.
- Tape and Reel (1,000 pcs. STD).

ELECTRICAL SPECIFICATIONS

PARAMETERS	CONDITIONS	ECS-8FM		ECS-8FB		ECS-8FA		UNITS
		MIN	MAX	MIN	MAX	MIN	MAX	
Frequency Range		1.025	26.000	26.000	66.667	26.000	66.667	MHz
Frequency Stability	-10 ~ +70°C* -40 ~ +85°C*	-100 -200	+100 +200	-100 -200	+100 +200	-100 —	+100 —	PPM
Input Current (I _{in})	No Load Output Disabled (I _z)		23 12		35 25		35 20	mA
Output Symmetry	0.5 V _{dd} 1.4V	40 40	60 60	— 45	— 55	40 —	60 —	%
Rise Time (T _r)	20% ~ 80% V _{dd} 0.4V ~ 2.4V		8 8		5 5		7 7	nS
Fall Time (T _f)	80% ~ 20% V _{dd} 2.4V ~ 0.4V		8 8		5 5		7 7	
Output Voltage (V _{OL}) (V _{OH})	I _{OL} = MAX I _{OH} = MAX	V _{dd} - 0.4	0.4	2.4	0.5	V _{dd} - 0.4	0.4	V
Output Current (I _{OL}) (I _{OH})	V _{OL} = MAX V _{OH} = MIN		16 -0.4		16 -0.4		4.0 -4.0	mA
Output Load	HCMOS TTL		50 10		5		50	pF TTL
Start-up Time (T _s)			4		10		10	mS
Output Enable/Disable Time			100		100		100	nS
Logic		TTL/CMOS		CMOS		TTL		

* Inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock and vibration.

*** An internal pullup resistor from pin 1 to pin 4 allows active output if pin 1 is left open.

DIMENSIONS (MM)

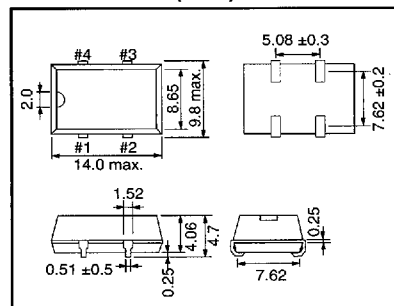


Fig 1) Dimensions

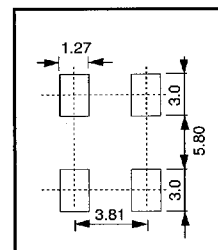


Fig 2) Land Pattern

PIN	CONNECTION
1	Enable/Disable**
2	GND
3	OUT
4	+5VDC

Fig 3) Pin Connections

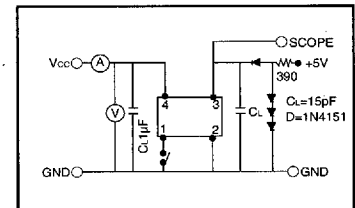


Fig 4) TTL Measurement Circuit

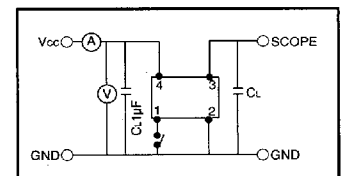


Fig 5) CMOS Measurement Circuit

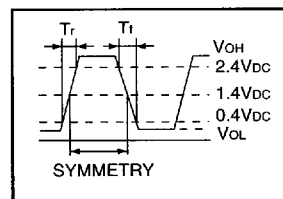


Fig 6) TTL Output Waveform

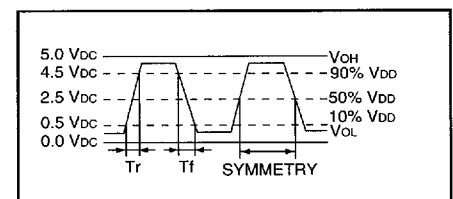


Fig 7) CMOS Output Waveform

OPERATING CONDITIONS

Frequency Range (F _o)	1.025 ~ 66.667 MHz
Operating Temperature Range (T _{OPR})	-10 ~ +70°C
Storage Temperature Range (T _{STG})	-55 ~ +125°C
Supply Voltage (V _{dd})	5.0±0.5 V

ENABLE/DISABLE FUNCTION**

INH (Pin 1)	OUTPUT (Pin 3)
OPEN ***	ACTIVE
"1" Level V _{IH} ≥ 2.0V (8FA, 8FM)	ACTIVE
"1" Level V _{IH} ≥ 3.5V (8FB)	ACTIVE
"0" Level V _{IL} ≤ 0.8V (8FA, 8FM)	High Z
"0" Level V _{IL} ≤ 1.5V (8FB)	High Z