

SP8630

600MHz ÷ 10

The SP8630 is an asynchronous emitter coupled logic divider which provides an ECL/IV10K compatible output when used with an external pulldown resistor. It requires an AC coupled input of 800mV p-p.

FEATURES

- ECL Compatible Outputs
- AC-Coupled Inputs (Internal Bias)

QUICK REFERENCE DATA

- Supply Voltage: -5-2V
- Power Consumption: 350mW
- Temperature Range: -30°C to +70°C

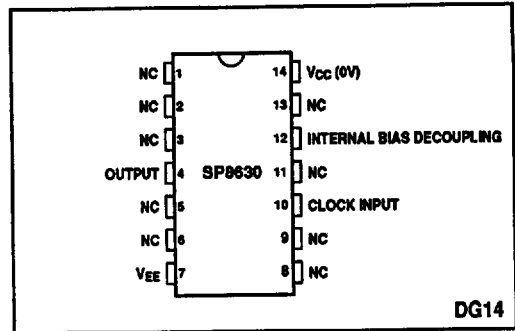


Fig. 1 Pin connections - top view

ABSOLUTE MAXIMUM RATINGS

Supply voltage, V_{EE}	-8V
Output current	15mA
Storage temperature range	-65°C to +150°C
Max. junction temperature	+175°C
Max. clock input voltage	2.5V p-p

ORDERING INFORMATION

SP8630 B DG
5962-92003 (SMD)

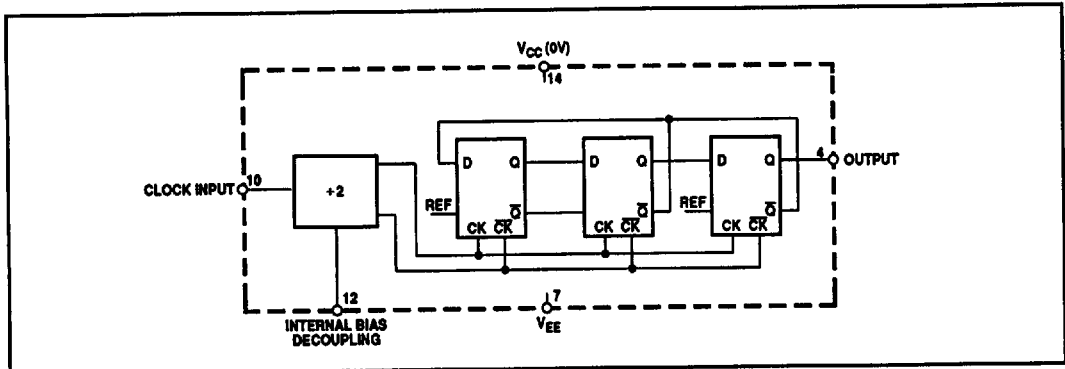


Fig. 2 Functional diagram

ELECTRICAL CHARACTERISTICS

Unless otherwise stated, the Electrical Characteristics are guaranteed over specified supply, frequency and temperature range

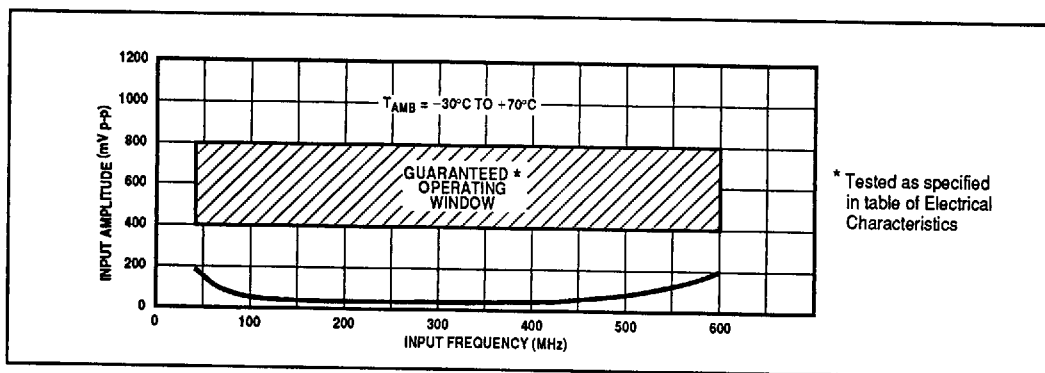
Supply voltage, $V_{CC} = 0V$, $V_{EE} = -5.2V \pm 0.25V$

Temperature, $T_{AMB} = -30^{\circ}C$ to $+70^{\circ}C$

Characteristic	Symbol	Value		Units	Conditions	Notes
		Min.	Max.			
Maximum frequency (sinewave input)	f_{MAX}	600		MHz	Input = 400-800mV p-p	
Minimum frequency (sinewave input)	f_{MIN}		40	MHz	Input = 400-800mV p-p	
Power supply current	I_{EE}		70	mA	$V_{EE} = -5.2V$	
Output low voltage	V_{OL}	-1.8	-1.5	V	$V_{EE} = -5.2V$	3
Output high voltage	V_{OH}	-0.85	-0.7	V	$V_{EE} = -5.2V$	3
Minimum output swing	V_{OUT}	400		mV	$V_{EE} = -5.2V$	

NOTES

1. The temperature coefficients of $V_{OH} = +1.63mV/^{\circ}C$, and $V_{OL} = +0.94mV/^{\circ}C$ but these are not tested.
2. The test configuration for dynamic testing is shown in Fig.5.
3. Tested at $25^{\circ}C$ only.



* Tested as specified in table of Electrical Characteristics

Fig. 3 Typical input characteristic

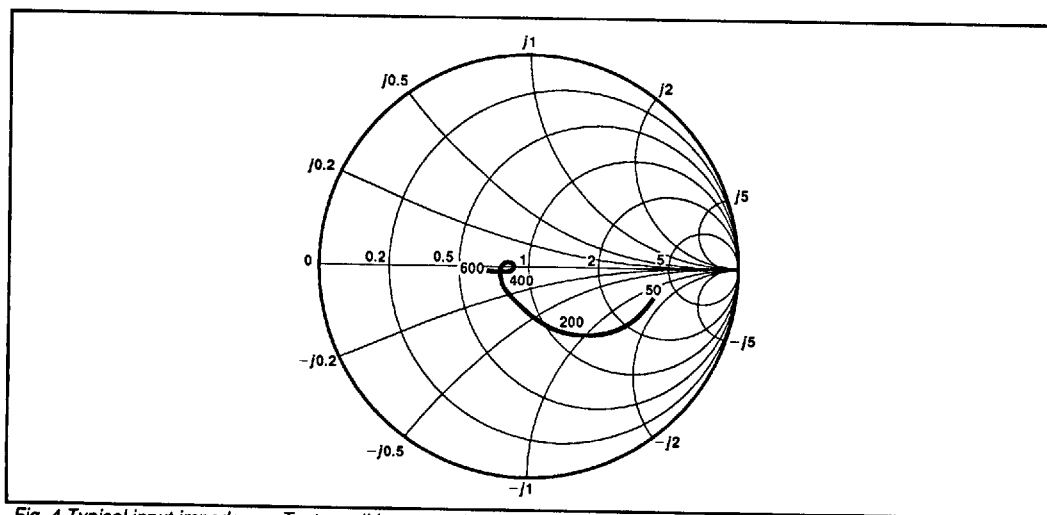


Fig. 4 Typical input impedance. Test conditions: supply voltage = $-5.2V$, ambient temperature = $25^{\circ}C$, frequencies in MHz, impedances normalised to 50Ω

