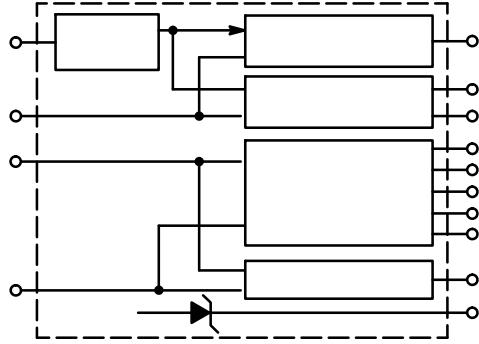


–follower output SF_{out} with an external resistor is used where the VCO_{in} signal is needed but no loading can be tolerated. The inhibit input Inh , when high, disables the VCO and source follower to minimize standby power consumption. The zener diode can be used to assist in power supply regulation.

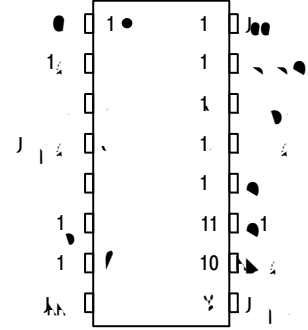
Applouption.s

MC14046B

BLOCK DIAGRAM



PIN ASSIGNMENT



MC14046B

ELECTRICAL CHARACTERISTICS (Note 4) ($C_L = 50 \text{ pF}$, $T_A = 25 \text{ C}$)

Characteristic	Symbol	V_{DD} Vdc	Minimum	Typical	Maximum	Units
			Device		Device	
Output Rise Time $t_{TLH} = (3.0 \text{ ns/pF}) C_L + 30 \text{ ns}$ $t_{TLH} = (1.5 \text{ ns/pF}) C_L + 15 \text{ ns}$ $t_{TLH} = (1.1 \text{ ns/pF}) C_L + 10 \text{ ns}$	t_{TLH}	5.0 10 15	– – –	180 90 65	350 150 110	ns
Output Fall Time $t_{THL} = (1.5 \text{ ns/pF}) C_L + 25 \text{ ns}$ $t_{THL} = (0.75 \text{ ns/pF}) C_L + 12.5 \text{ ns}$ $t_{THL} = (0.55 \text{ ns/pF}) C_L + 9.5 \text{ ns}$	t_{THL}	5.0 10 15	– – –	100 50 37	175 75 55	ns

PHASE COMPARATORS 1 and 2

Input Resistance – PCA_{in}	R_{in}	5.0	1.0	2.0	–	$M\Omega$
		10	0.2	0.4	–	
		15	0.1	0.2	–	
– PCB_{in}	R_{in}	15	150	150	–	$M\Omega$
Minimum Input Sensitivity AC Coupled — PCA_{in} C series = 1000 pF, $f = 50 \text{ kHz}$	V_{in}	5.0	–	200	300	mV _{rms}
		10	–	400	500	
		15	–	700	1050	
DC Coupled – PCA_{in} , PCB_{in}	–	5 to 15				

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Typical Low Pass Filters

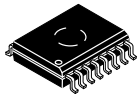
NOTE: Sometimes R3 is split into two series resistors each $R3/2$. A capacitor C

MC14046B

ORDERING INFORMATION

Device	Package	Shipping†
MC14046BDWG	SOIC-16 WB (Pb-Free)	47 Units / Tube
MC14046BDWR2G	SOIC-16 WB (Pb-Free)	1000 Units / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging



SOIC-16 WB

SCALE 1:1

16

9

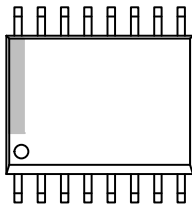


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**GENERIC
MARKING DIAGRAM***



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