

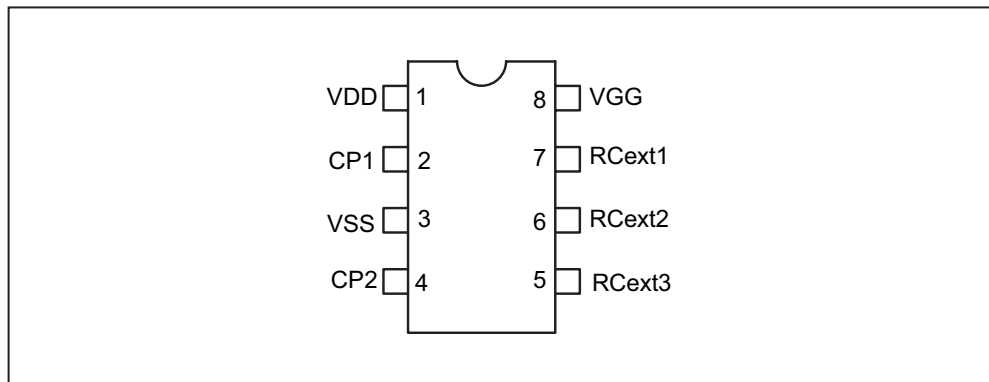
1. Description

The V3102 is a universal CMOS LSI to generate a two-phase clock signal of low output impedance, perfectly suitable to drive BBDs up to 4096 stages, such as V3207, V3208, V3205, etc.

2. Features

- Direct driving capability of up to 4096-stage BBD's
- Self-oscillation or separate excitation possible
- Two phase clock output (duty: 1/2)
- Incorporates a diode to protect the IGBT gate at power on
- Package outline: DIL-8 (V3102D)
- ROHS compliant (PB-free)

3. Pin Configuration



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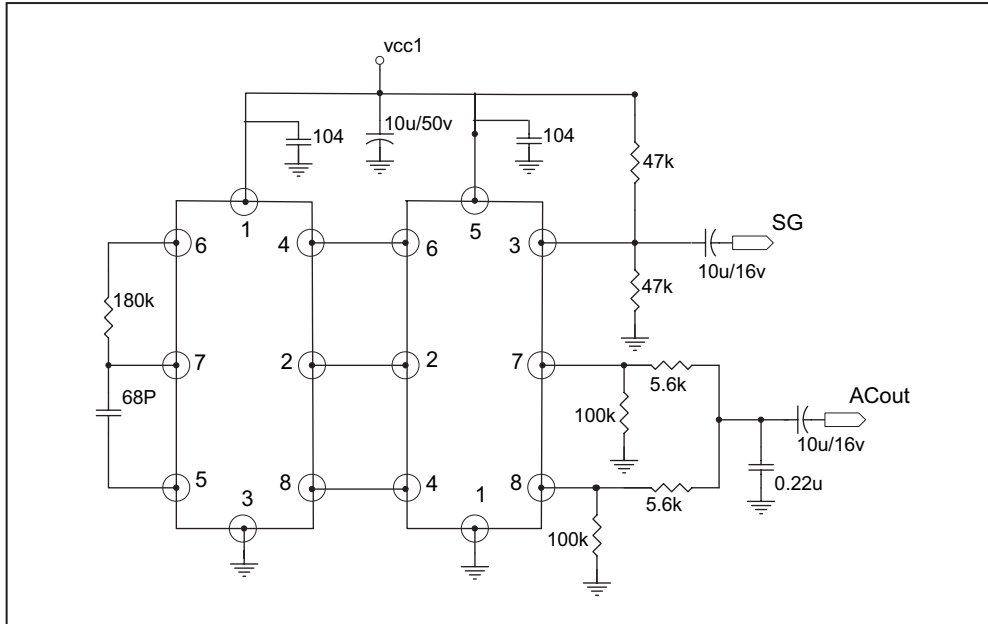
4. Absolute Maximum Ratings (Tamb=25°C)

Parameter	Symbol	Min	Max	Unit
Collector Supply Voltage	V _{CC}	-0.3	12	V
Input Voltage	V _I , V _O	-0.3	V _{CC} +0.3	V
Power Dissipation	P _D		200	mW
Operating Temperature	T _{amb}	-10	70	°C
Storage Temperature	T _{stg}	-30	125	°C

5. Electrical Characteristics (T_a=25°C, V_{CC}=20V, Unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ.	Max	Unit
Drain Supply Current	I _{CC}	R _L =∞, F ₀ =40KHZ		0.5		mA
Total Power Dissipation	P _{tot}			2.5		mW
Input Current "H" Level	V _{IH}	V _{CC} =5V, 10V	V _{CC} -1		V _{CC}	V
Input Current "L" Level	V _{IL}	V _{CC} =5V, 10V	0		1	V
Input High Leakage Current	I _{IH} (L)	V _I =10V			30	μA
Input Low Leakage Current	I _{IL} (L)	V _I =10V			30	μA
Output Current "H" Level	I _{OH} (1)	V _{CC} =5V, V _O =4V	0.5			mA
Output Current "L" Level	I _{OL} (1)	V _{CC} =5V, V _O =1V	0.4			mA
Output Leakage Current "H" Level	I _{OH} (L1)	V _{CC} =10V, V _O =V _{CC}			30	μA
Output Leakage Current "L" Level	I _{OL} (L1)	V _{CC} =10V, V _O =V _{SS}			30	μA
Output Current "H" Level	I _{OH} (L2)	V _{CC} =5V, V _O =4V	0.7			mA
Output Current "L" Level	I _{OL} (L2)	V _{CC} =5V, V _O =1V	1			mA
Output Leakage Current "H" Level	I _{OH} (L2)	V _{CC} =10V, V _O =V _{CC}			30	μA
Output Leakage Current "L" Level	I _{OL} (L2)	V _{CC} =10V, V _O =V _{SS}			30	μA
Output Current "H" Level	I _{OH} (3)	V _{CC} =5V, V _O =4V	5			mA
Output Current "L" Level	I _{OL} (3)	V _{CC} =5V, V _O =1V	5			mA
Output Leakage Current "H" Level	I _{OH} (L3)	V _{CC} =10V, V _O =V _{CC}			30	μA
Output Leakage Current "L" Level	I _{OL} (L3)	V _{CC} =10V, V _O =V _{SS}			30	μA

6. Application Circuit



7. Mechanical Drawing

