

## Xvive MN3102

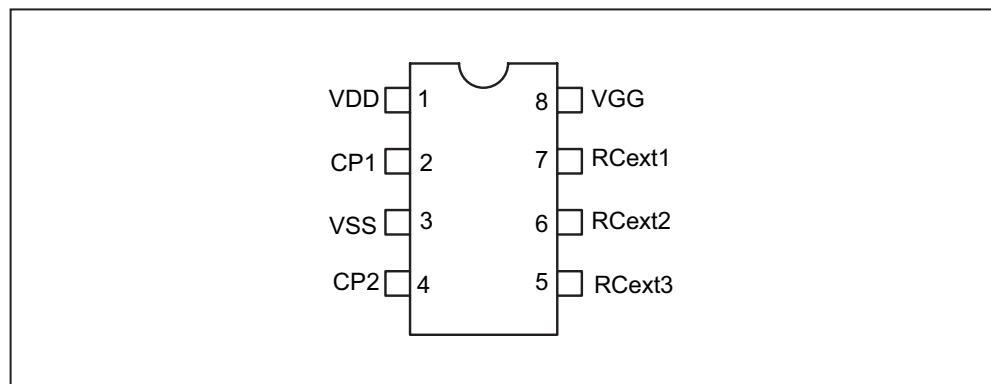
### 1. Description

The MN3102 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 (MN3102D)
- ROHS compliant (PB-free)

### 3. Pin Configuration



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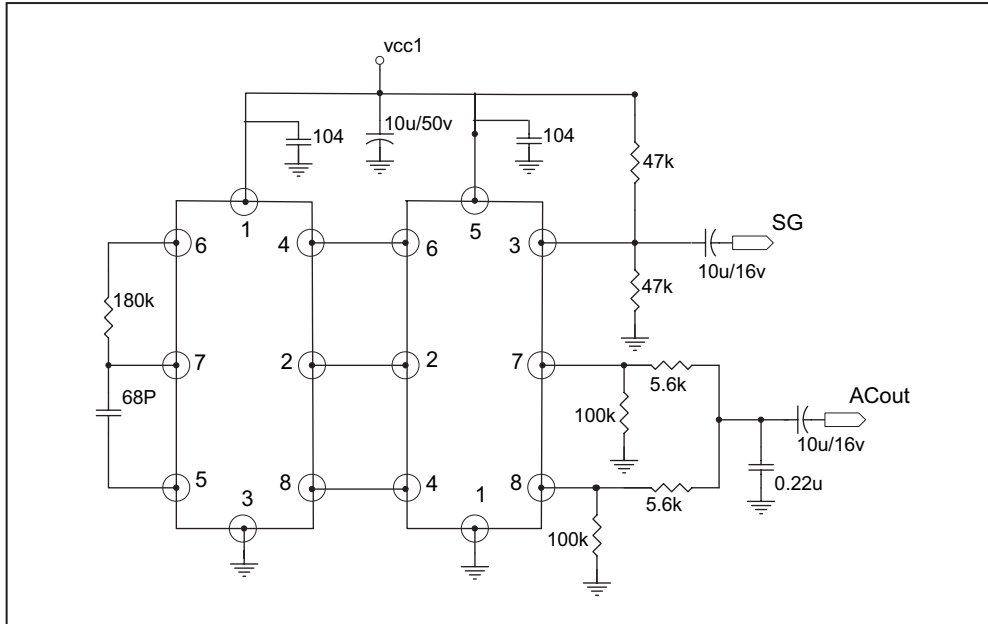
## 4. Absolute Maximum Ratings (Tamb=25°C)

Parameter	Symbol	Min	Max	Unit
Collector Supply Voltage	V <sub>CC</sub>	-0.3	12	V
Input Voltage	V <sub>I</sub> , V <sub>O</sub>	-0.3	V <sub>CC</sub> +0.3	V
Power Dissipation	P <sub>D</sub>		200	mW
Operating Temperature	T <sub>amb</sub>	-10	70	°C
Storage Temperature	T <sub>stg</sub>	-30	125	°C

## 5. Electrical Characteristics (T<sub>a</sub>=25°C, V<sub>CC</sub>=20V, Unless otherwise specified)

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

## 6. Application Circuit



## 7. Mechanical Drawing

