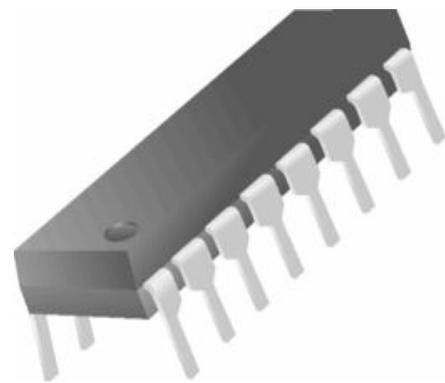




RE46C162 Low-power Smoke Detector IC

General Description:

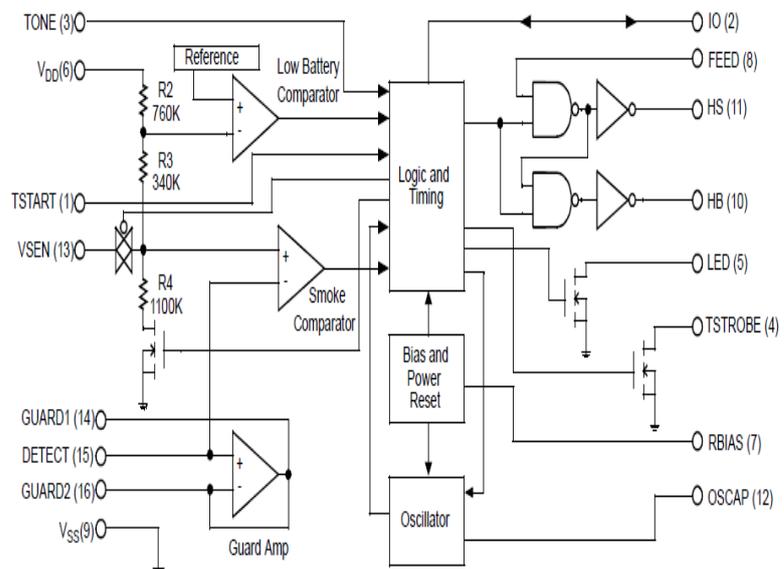
The RE46C162 device is a low-power, CMOS ionization type, smoke detector IC. With few external components, this circuit will provide all the required features for an ionization type smoke detector. An internal oscillator strobes power to the smoke detection circuitry for 10.5 ms every 1.67 seconds to keep standby current to a minimum. A check for a low battery condition is performed every 40 seconds when in standby. An external pin enables the selection of a continuous tone or NFPA temporal horn pattern. An interconnect pin allows multiple detectors to be connected so when one unit alarms, all units will sound. A charge dump feature will quickly discharge the interconnect line when exiting a local alarm. The interconnect input is also digitally filtered. An internal 8 minute timer allows for a single button, push-to-test to be used for a reduced sensitivity mode. An alarm memory feature allows the user to determine if the unit has previously entered a local alarm condition. Utilizing low-power CMOS technology, the RE46C162 device is designed for use in smoke detectors that comply with Underwriters Laboratory Specification UL217 and UL268.



The RE46C162 device is a low-power, CMOS ionization type, smoke detector IC. With few external components, this circuit will provide all the required features for an ionization type smoke detector. An internal oscillator strobes power to the smoke detection circuitry for 10.5 ms every 1.67 seconds to keep standby current to a minimum. A check for a low battery condition is performed every 40 seconds when in standby. An external pin enables the selection of a continuous tone or NFPA temporal horn pattern. An interconnect pin allows multiple detectors to be connected so when one unit alarms, all units will sound. A charge dump feature will quickly discharge the interconnect line when exiting a local alarm. The interconnect input is also digitally filtered. An internal 8 minute timer allows for a single button, push-to-test to be used for a reduced sensitivity mode. An alarm memory feature allows the user to determine if the unit has previously entered a local alarm condition. Utilizing low-power CMOS technology, the RE46C162 device is designed for use in smoke detectors that comply with Underwriters Laboratory Specification UL217 and UL268.

Key Features:

- Pin Selectable Horn Patterns
- Alarm Memory
- Sensitivity Control Timer: 8 minutes
- >1500V ESD Protection (HBM) on All Pins
- Guard Outputs for Ion Detector Input
- $\pm 0.75 \mu\text{A}$ Detect Input Current
- Internal Reverse Battery Protection
- Low Quiescent Current Consumption ($< 6.5 \mu\text{A}$)
- I/O Filter and Charge Dump
- Internal Low Battery Detection



- Power-up Low Battery Test
- Interconnect up to 66 Detectors
- RoHS Compliant, Lead Free Packaging

Applications:

- Smoke detection

Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
RE46C162E16F	1814901	73R8692	Low-power smoke detector IC,PDiP
RE46C163E16F	1814902	73R8693	Low-power smoke detector IC,PDiP