

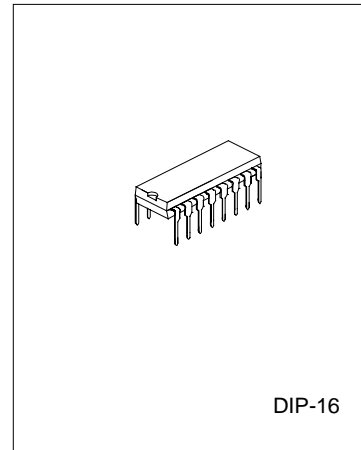
REMOTE CONTROLLER WITH TWO FUNCTIONS

DESCRIPTION

The RX-3 is a CMOS LSI designed for remote controlled car applications. The RX-3 has only 2 keys with 3 states, i.e. forward key for forward function, backward key for backward function, and stop function if there is no signal.

FEATURES

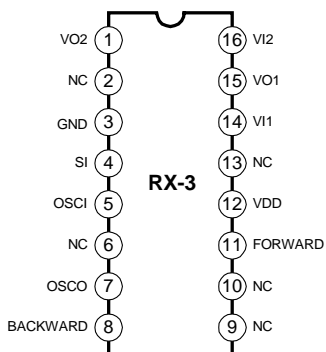
- * Wide operating voltage range ($V_{CC}=2.2 \sim 12V$)
- * Few external components are needed
- * Typical oscillator frequency 76KHz
- * RX-3 built-in Zener 3V
- * 2 functions remote controller including forward/backward



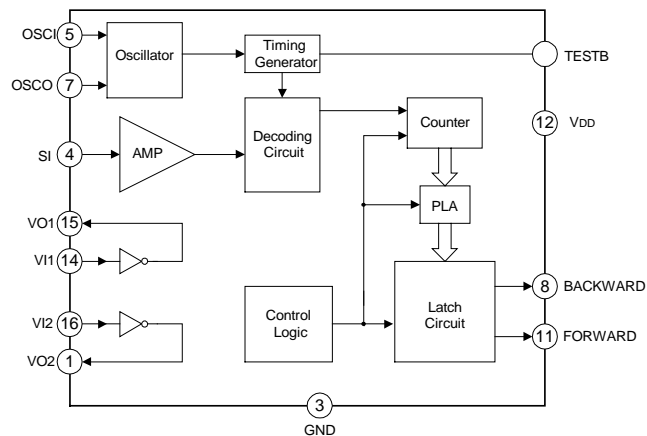
ORDERING INFORMATION

| Part No. | Package |
|----------|-----------------|
| RX-3 | DIP-16-300-2.54 |

PIN CONFIGURATION



BLOCK DIAGRAM



PIN DESCRIPTION

| Pin No. | Symbol | Description |
|---------|----------|--|
| 1 | VO2 | Inverter 2 output pin for signal amplify |
| 2 | NC | No connection |
| 3 | GND | Negative power supply |
| 4 | SI | Input pin of the encoding signal |
| 5 | OSCI | Oscillator input pin |
| 6 | NC | No connection |
| 7 | OSCO | Oscillator output pin |
| 8 | BACKWARD | Backward output pin |
| 9 | NC | No connection |
| 10 | NC | No connection |
| 11 | FORWARD | Forward output pin |
| 12 | VDD | Positive power supply |
| 13 | NC | No connection |
| 14 | VI1 | Inverter 1 input pin for signal amplify |
| 15 | VO1 | Inverter 1 output pin for signal amplify |
| 16 | VI2 | Inverter 2 input pin for signal amplify |

ABSOLUTE MAXIMUM RATINGS

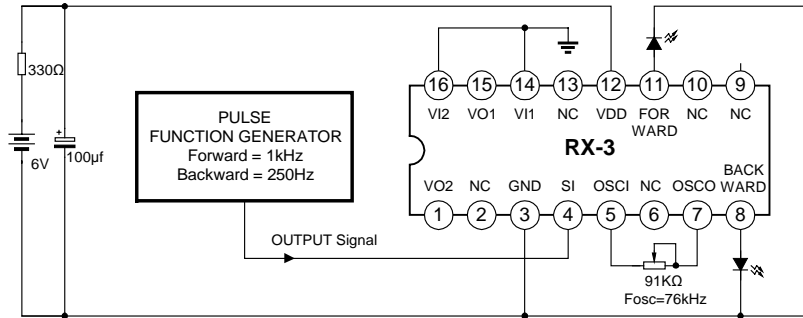
| Characteristic | Symbol | Value | Unit |
|------------------------|------------------|-----------------|------|
| Supply Voltage | V _{DC} | 0.3~15 | V |
| Input / Output Voltage | V _{I/O} | GND-0.3~VDD+0.3 | V |
| Operating Temperature | T _{OPR} | -10~60 | °C |
| Storage Temperature | T _{stg} | -25~125 | °C |

ELECTRICAL CHARACTERISTICS

(V_{DD}=6.0V, F_{osc}=76KHz, T_{amb}=25°C, unless otherwise specified.)

| Parameter | Symbol | Min | Typ | Max | Unit |
|-------------------------------------|------------------------|------|-----|-----|------|
| Operating Voltage | V _{DD} | 2.2 | 6 | 12 | V |
| Operating Current | I _{DD} | -- | 9 | -- | mA |
| O/P Driving Current | I _{drive} | -- | 5 | -- | mA |
| Effect Decoding Frequency Variation | F _{tolerance} | -20% | -- | 20% | -- |

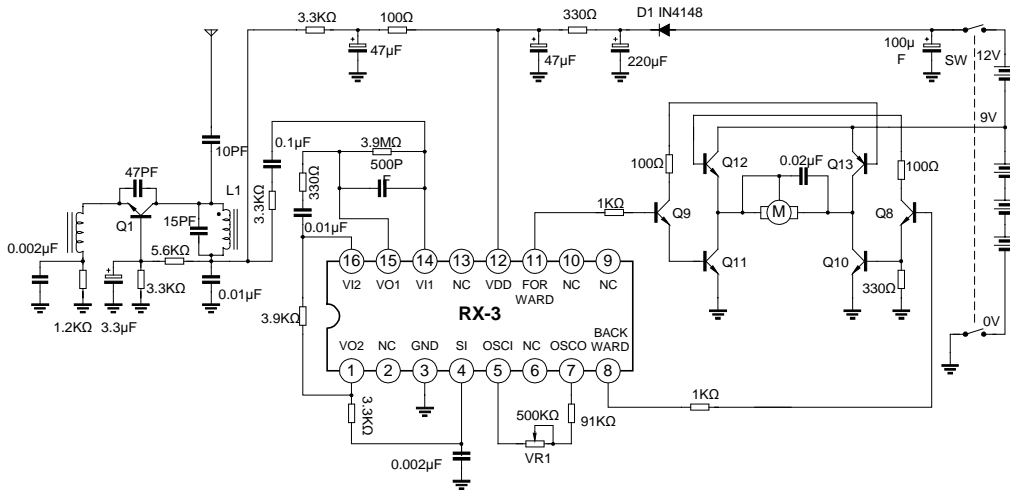
TESTING CIRCUIT ($F_{osc}=76kHz$)



Data Format

- Forward Signal: $F1=1kHz$
- Backward Signal: $F2=250Hz$
- $F1=4F2$ or $F1=2F2$ (Mask option)

TYPICAL APPLICATION CIRCUIT



PACKAGE OUTLINE

