



Infra-Red CAR-KEY Transmitter

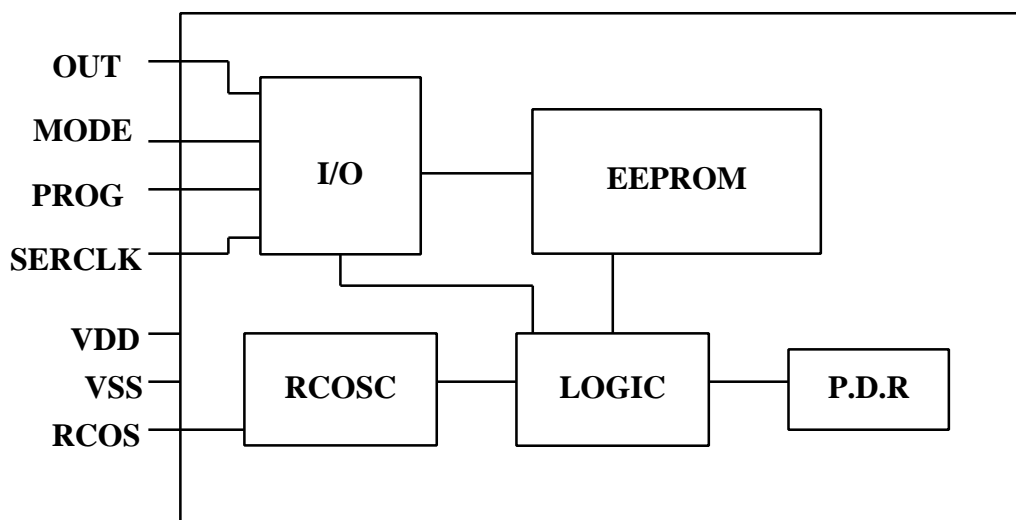
OM1058 in case SO-8

1. DESCRIPTION AND APPLICATION

This device is intended to be used in an infra-red remote-control car-key to transmit, when a button is pushed, an individual code to a receiver in the car to alternately open and lock the doors. The code is stored in a 24-bit EEPROM which is programmed by the equipment manufacturer. An input selects between a single or a repetitive transmission. It uses a fixed frequency to code the data.

This device is identical to an OM1058.

FIGURE 1 : "Block Diagramm"





COMPONENT DATA

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2. ELECTRICAL REQUIREMENTS

2.1 MAXIMUM RATINGS

TABLE 1 : "Maximum ratings"

PARAMETERS	SYMBOL	VALUE	UNIT
DC Supply Voltage	V_{DD}	-0.3 to 7	V
Voltage range on any input (except pin3)	V_I	-0.8 to $V_{DD} + 0.8$	V
Voltage range pin 3	V_I	-0.8 to $V_{DD} + 3$	V
Storage temperature (unprogrammed)	T_{stgu}	-65 to +150	°C
Storage temperature range (programmed)	T_{stgp}	-65 to +85	°C
Operating ambient temperature range	T_{amb}	-40 to +85	°C

2.2 ELECTRICAL CHARACTERISTICS

TABLE 2 : "Electrical Parameters"

$T_A = 25^\circ\text{C}$, and $V_{DD} = 5\text{V}$ unless otherwise noted

CHARACTERISTIC	SYMBOL	MIN	TYP	MAX	Units
OPERATING VOLTAGE	V_{DD}	2.5		6.5	V
OPERATING CURRENT at 5V, 25°C, 50KHz	I_{DD}			500	μA
INPUT VOLTAGE (pin 2,3,6) low high	V_{IL} V_{IH}	-0.8 $0.7 * V_{DD}$		$0.3 * V_{DD}$ $V_{DD} + 0.8$	V V
INPUT VOLTAGE (pin 7), programming low high	V_{IL} V_{IH}	-0.8 V_{DD}		0 $V_{DD} + 0.8$	V V
LEAKAGE CURRENT (pin 2,3,6 at V_{SS} or V_{DD}) LEAKAGE CURRENT (pin 7 at V_{SS})	I_L			1	μA
INPUT CURRENT (pin 3) at 5V, pin3 = 7.5V	I_{IN}			3	mA
OUT sink current at 5V, 25°C, OUT=4V		25		100	mA
OUT source current at 5V, 25°C, OUT=0V		-400		-1200	μA
RCOS frequency with 51K, 560pF, 3.5V		40		60	KHz
SERCLK resistor to V_{SS} (at 25°C)		25		100	kOhm

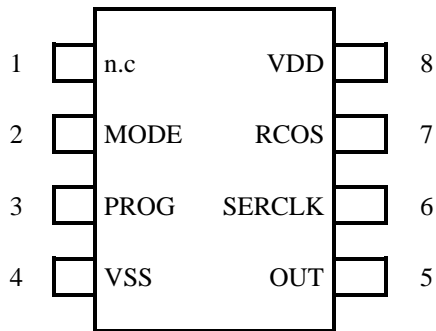


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3. DRAWINGS, TEST CIRCUITS AND TABLES

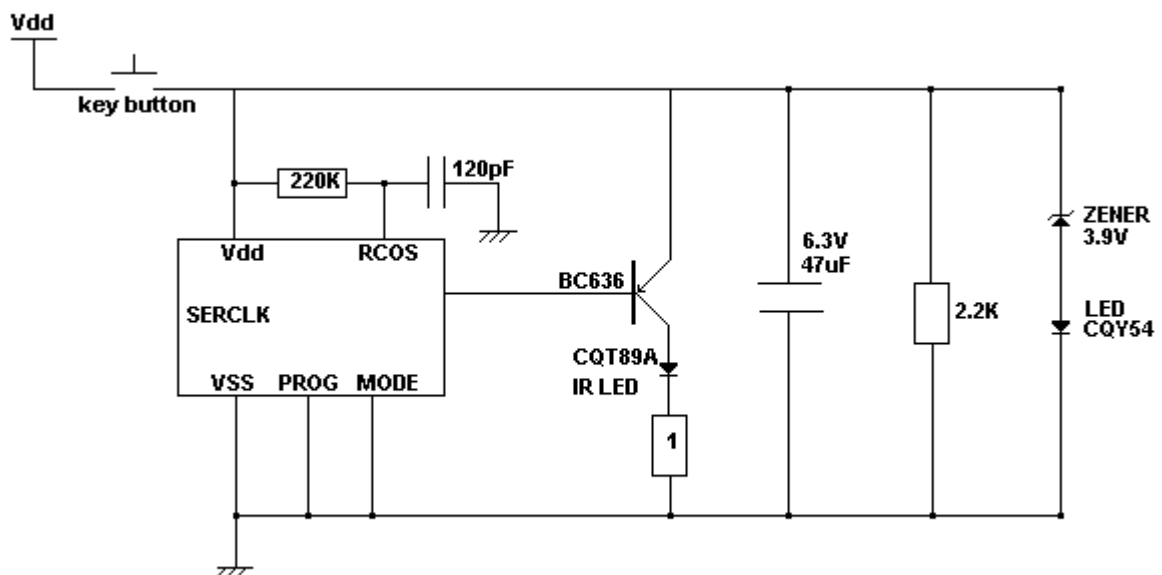
FIGURE 2 : "Pinning Diagramm"



PINNING:

- 1. N.C
- 2. MODE input to select single or repetitive transmission
- 3. PROG input used to program the EEPROM
- 4. VSS ground
- 5. OUT CMOS output
- 6. SERCLK input used to program the EEPROM
- 7. RCOS RC oscillator and used to program the EEPROM
- 8. VDD positive supply

FIGURE 3 : "Typical Application Diagramm"

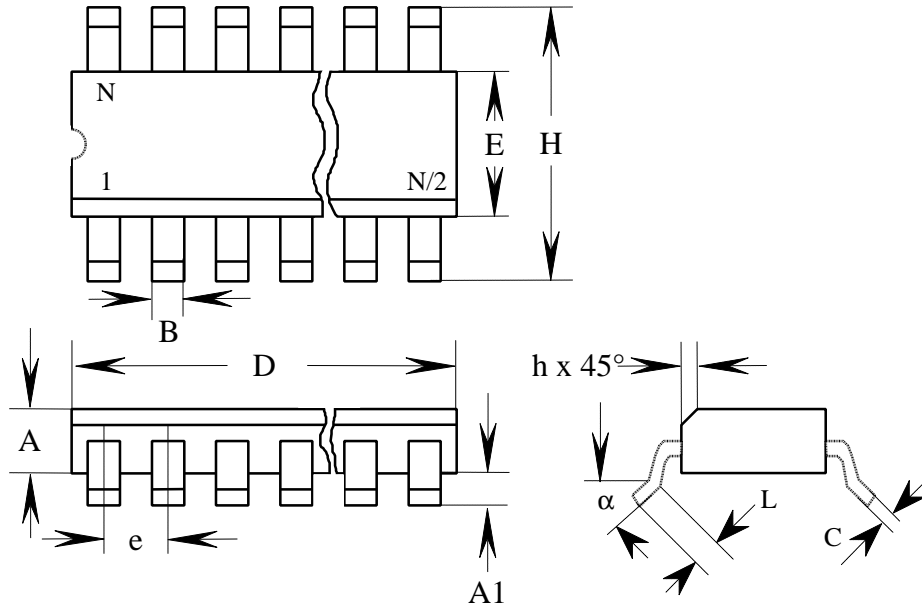




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FIGURE 4 : "Outline Dimensions"



SYMBOL	VARIATIONS	
	MIN	MAX
A	1,35	1,75
A1	0,1	0,25
B	0,36	0,49
C	0,19	0,25
D	4,8	5,0
E	3,8	4,0
N	8	
e	1,27	
H	5,8	6,2
h		
L	0,3	
a		

Ind.	Date	Issue	Author
A	19 may 1993	Original release	A.L.
B	16 june 1999	Update	B.G.