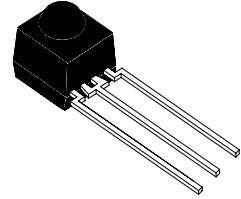


MICROCIRCUIT OF PHOTOMODULE FOR TELEVISION

Photomodule for the remote control infra-red systems, analogues TSOP1836/1838 by company "Vishay Telefunken". Microcircuit of the photomodule is intended for the signal reception, amplification and demodulation in the remote control system.



Identification of microcircuit in the package
ILOP1836, ILOP1838 Plastic

Figure 1

Table 1 – Designation of pins

Number of Pin	Identification	Purpose
01	OUT	Output
02	GND	Common pin
03	V _s	Supply pin from the voltage source

Identification of pins in the package

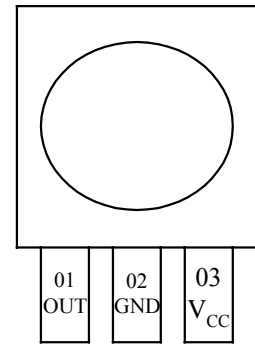


Figure 2

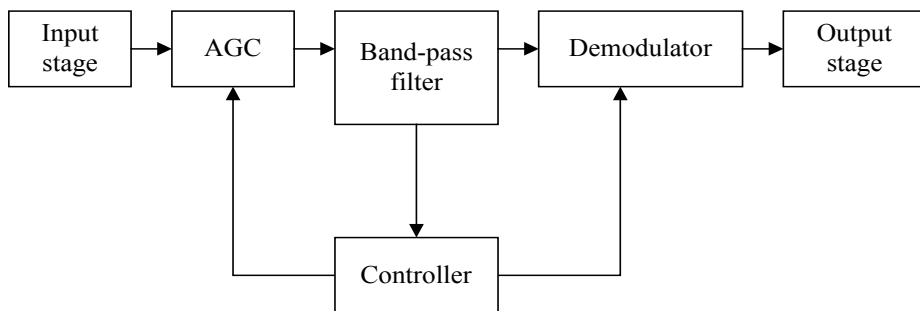


Figure 3 Structural diagram

Table 2 – Limit modes

Identification of Parameter	Description of Parameter	Norm		Unit of Measurement
		Not less	Not more	
V _{CC}	Supply voltage	-0.3	6.0	V
V _O	Voltage at output	-0.3	6.0	
I _{CC}	Current at the supply pin	-	5.0	mA
P _D	Dissipated power		50	mWt
T _{stg}	Storage temperature	-25	85	°C

Table 3 – Limit permissible modes

Identification of Parameter	Description of Parameter	Norm		Unit of Measurement
		Not less	Not more	
V _{CC}	Supply voltage	4.5	5.5	V
I _O	Output current	-	0.5	MA
E _{emin}	Minimum irradiance		0.5	mWt/m ²
E _{emax}	Maximum irradiance	30	-	Wt/m ²
T _{pa6}	Range of operational temperatures	-25	85	°C

Table 4 – Electric Characteristics

Description of Parameter, Unit of Measurement	Letter Identification	Mode of Measurement	Norm		
			Min.	Max.	Typic.
Consumption current, mA	I _{CC}	V _{CC} = 5 V, E _V = 0 lx E _V = 40 lx	0.5	1.5	- 1.2
Supply voltage, V	V _{CC}	-	4.5	5.5	-
Low level output voltage, V	V _{OL}	I _{OL} = 0.5 mA, V _{CC} = 4.5 V, E _e =0,7 mWt/m ²	-	0.2 50	-
Minimum irradiance, mWt/m ²	E _{emin}	t _{pi} -4/f ₀ < t _{po} < t _{pi} + 5/f ₀		0,5	
Maximum irradiance, Wt/m ²	E _{emax}	-	30	-	-
Transmission distance, m	d	E _V = 0 lx, I _F = 300 mA	-	-	35
Angle, at which the transmission distance reduces 2 times, degrees	φ _{1/2}	-			±45
Resonance frequency, kHz	fo	for ILOP1836			36
		for ILOP1838			38

Time Charts

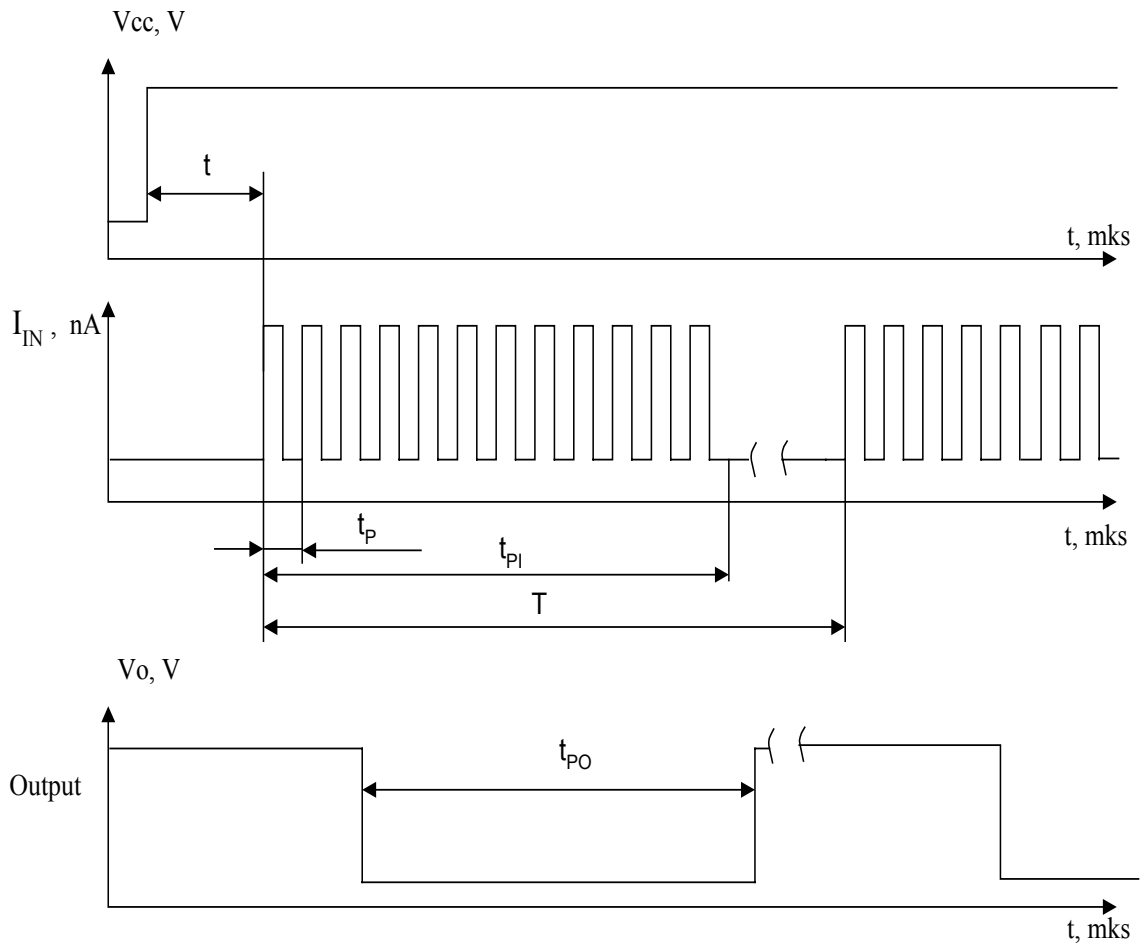
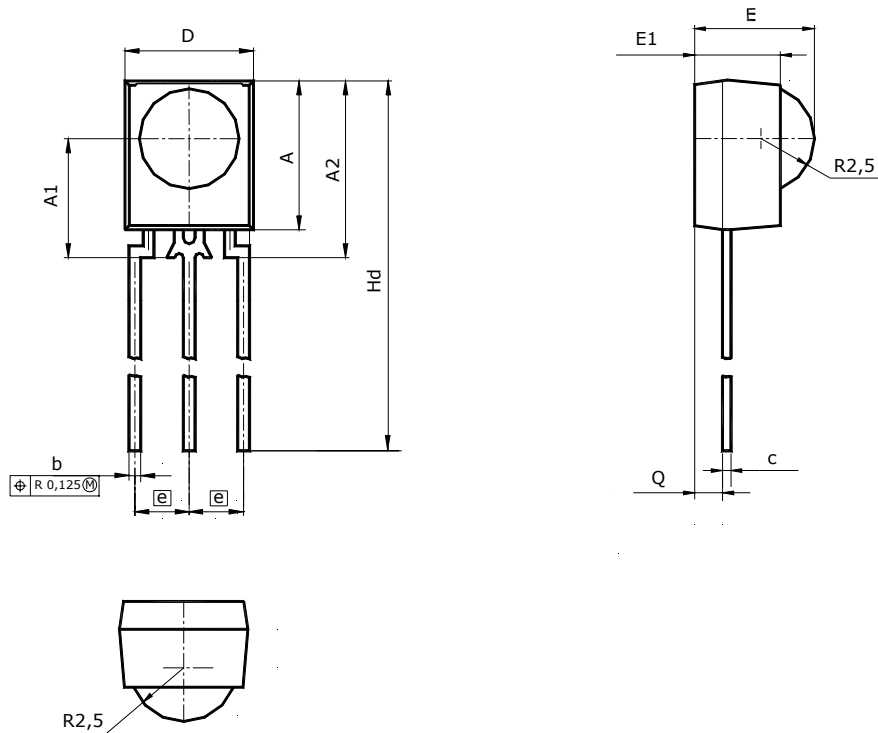


Figure 4- Time chart of functional control

Package Dimensional Sizes



Note - Dimensions D, A do not include the value of fin, which should not exceed 0,25 (0,010) per one side.

	D	A	Hd	b	e	c	Q	E1	E	A1	A2
Millimeters											
min	5.9	6.85	30	0.5	2.54	0.31	1.2	3.9	5.45	5.45	8.1
max	6.1	7.05	31	0.6		0.45	1.4	4.1	5.75	5.65	8.4
Inches											
min	0.232	0.27	1.181	0.02	0.1	0.012	0.047	0.154	0.215	0.215	0.319
max	0.24	0.278	1.22	0.024		0.018	0.055	0.161	0.226	0.222	0.33

Figure 5 - 3-Pin Special Plastic Single-in-Line