

## IR Sensor KME-M002C

### Description

The KME-M002C IR Sensor combines a high-output GaAs IRED with LTV Sensor.

### Features

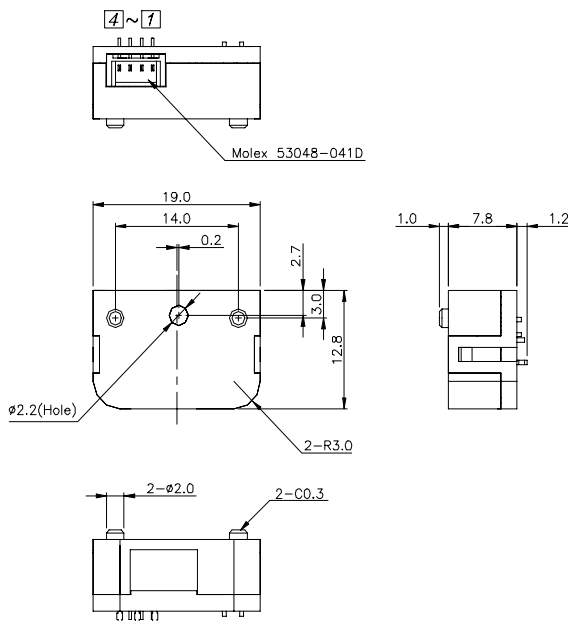
- Dustproof
- Easy Equipping

### Application

- ATM
- Auto Calculating M/C
- Vending Machine
- Copiers

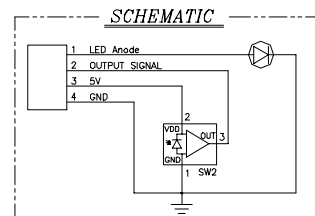


### Outline Dimensions

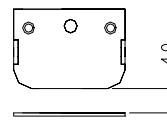


Note

#### 1. Pin Configuration



#### 2. Detecting Distance



#### 3. General Tolerance : ±0.2

[ Unit : mm ]

### Characteristics

[Ta= 25°C ]

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward Voltage	$V_F$	$I_F=20\text{mA}$	-	1.4	1.7	V
	Peak Wavelength	$\lambda_p$	$I_F=20\text{mA}$	-	940	-	nm
Output	Supply Voltage	$V_{DD}$	-	4.5	5.0	5.5	V
	Dark Voltage	$V_D$	$E_e=0$	0	-	15	mV
	Maximum Output Voltage	$V_{OM}$	$V_{DD}=4.5\text{V}$	-	4.49	-	V
Transmission	Forward Current	$I_F$	$l=4\text{mm}, V_{DD}=5\text{V}, V_{TAR}^{(1)}=4.5\text{V}, \text{Kodak } 90\%$	2	-	30	mA
	Low Level Output Voltage	$V_{OL}$	$l=4\text{mm}, V_{DD}=5\text{V}, I_{TAR}^{(2)}, \text{Art Work Black}$	-	-	1	V
Response Time <sup>(3)</sup>	Rise Time	tr	$V_{DD}=5\text{V}, R_L = 10\text{k}\Omega$	-	160	-	$\mu\text{s}$
	Fall Time	tf		-	150	-	$\mu\text{s}$

Note 1.  $V_{TAR}$  = Target Voltage = 4.5V

Note 2.  $I_{TAR}$  =  $I_F$ (Forward Current) under  $V_{TAR}$ (4.5V)

Note 3. Adjust amplitude and offset of square wave so that  $V_{out}$  transitions from 10% to 90% of  $V_{out}$  range