

KME-M002C

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

FEATURES

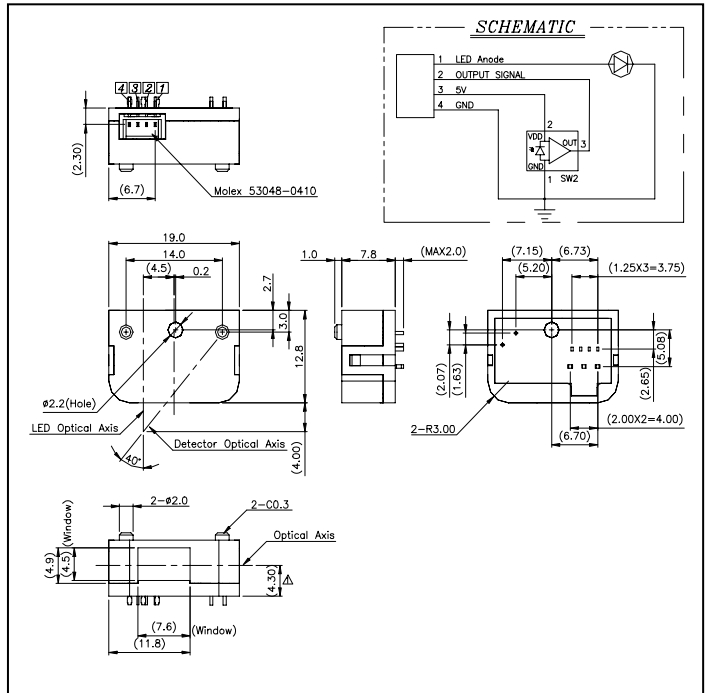
- Difficult for dust and debris to come onto element
- Easy equipping

APPLICATIONS

- ATM
- Vending Machine
- etc

DIMENSION

(Unit : mm)



MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Input	Power Dissipation	P_D	150 mW
	Forward Current	I_F	100 mA
	Peak Forward Current ⁽¹⁾	I_{FP}	1 A
	Reverse Current	I_R	60 mA
Output	Supply Voltage	V_{DD}	6 V
	Output Current	I_O	10 mA
Operating Temperature		T_{opr}	-20 ~ 75 °C
Storage Temperature Range		T_{stg}	-25 ~ 85 °C
ESD Withstand Voltage (Human Body Model)		V_{ESD}	±2.0 kV

Note 1. Pulse width ≤ 500usec ; Duty factor : 1%

ELECTRO-OPTICAL CHARACTERISTICS

(Ta=25°C)

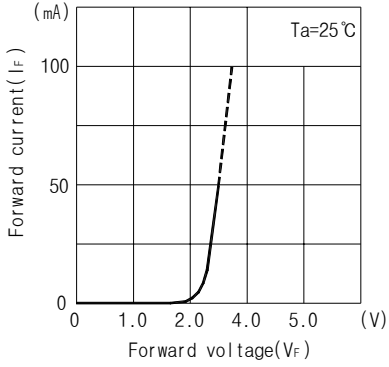
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward Voltage	$I_F=100mA$	-	1.4	1.7	V
	Peak Wavelength	$I_F=20mA$	-	940	-	nm
Output	Supply Voltage	-	4.5	5.0	5.5	V
	Dark Voltage	$E_e=0$	0	-	15	mV
	Maximum Output Voltage	$V_{DD}=4.5V$	-	4.49	-	V
Transmission	Forward Current	$L=4mm, V_{DD}=5V, V_{TAR}^{(2)}=4.5V, Paper=Kodak 90%$	2	-	40	mA
	Low Level Output Voltage	$L=4mm, V_{DD}=5V, I_{TAR}^{(3)}, Paper=Art Work Black$	-	-	1	V
Response Time	Rise Time	$V_{DD}=5.0V, R_L=1k\Omega$	-	160	-	μS
	Fall Time	$V_{DD}=5.0V, R_L=1k\Omega$	-	150	-	μS

Note 2. V_{TAR} = Target Voltage = 4.5V

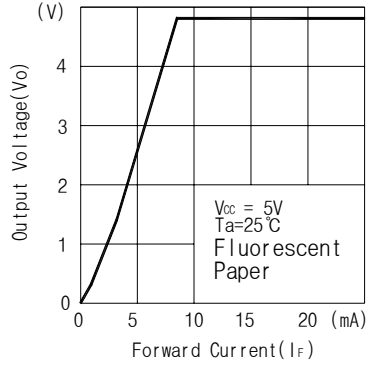
Note 3. I_{TAR} = I_F (Forward Current) when V_{TAR}

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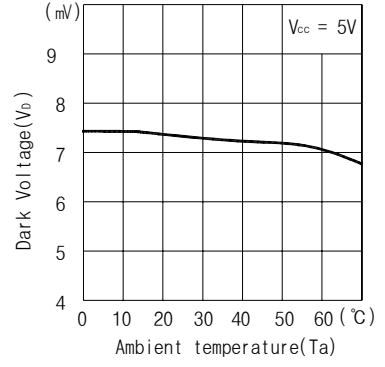
Forward current Vs. Forward voltage



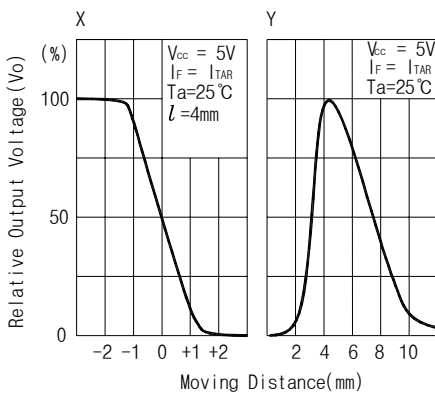
Output Voltage Vs. Forward Current



Dark Voltage Vs. Ambient temperature



Relative Output Voltage Vs. Moving distance



Method of measuring position detection characteristic

