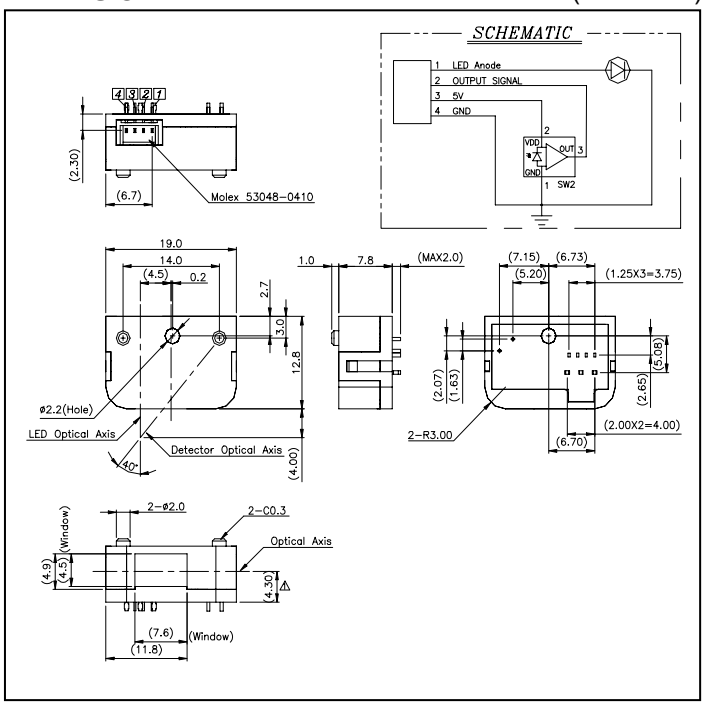
KME-M002C

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

DIMENSION (Unit : mm)



FEATURES

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

APPLICATIONS

- ATM
- Vending Machine
- etc

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		Topr	-20 ~ 75	°C
Storage Temperature Range		Tstg	-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	V_F	I_F=100mA	-	1.4	1.7	V
	Peak Wavelength	λp	I_F=20mA	-	940	-	nm
Output	Supply Voltage	V_{DD}	-	4.5	5.0	5.5	V
	Dark Voltage	V_D	Ee=0	0		15	mV
	Maximum Output Voltage	V_{OM}	V_{DD}=4.5V		4.49		V
Transmission	Forward Current	I_F	L=4mm, V_{DD}=5V, V_{TAR}(2)= 4.5V, Paper=Kodak 90%	2	-	40	mA
	Low Level Output Voltage	V_{OL}	L=4mm, V_{DD}=5V, I_{TAR}(3), Paper=Art Work Black	-	-	1	V
Response Time	Rise Time	tr	V_{DD}=5.0V, R_L=1kΩ	-	160	-	μs
	Fall Time	tf		-	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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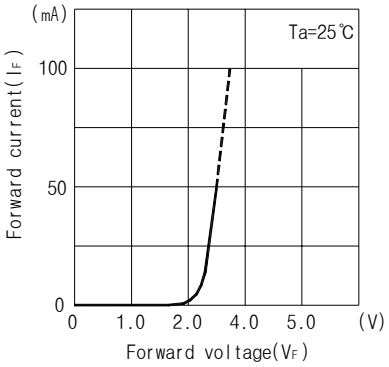
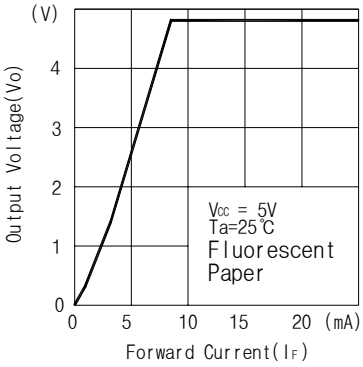
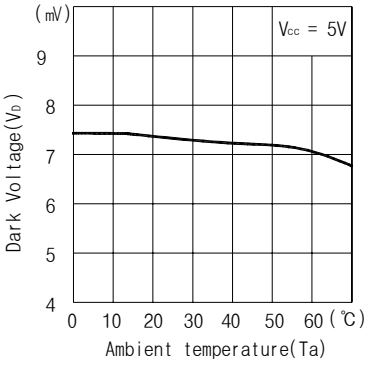
Forward current Vs.
Forward voltage



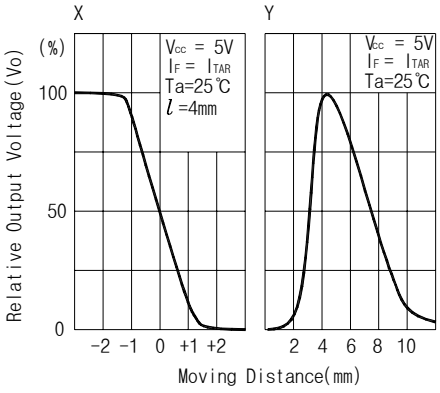
Output VoltageVs.
Forward Current



Dark VoltageVs.
Ambient temperature



Relative Output Voltage Vs.
Moving distance



Method of measuring position detection characteristic