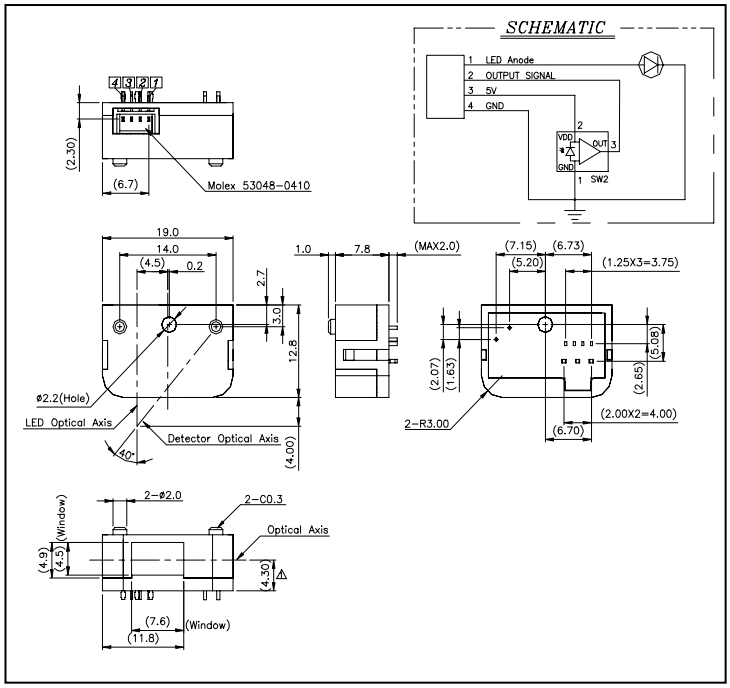
KME-M001C

The KME-M001C UV Sensor combines a High Power UV LED with LTV Sensor, Band pass filter.

DIMENSION (Unit : mm)



FEATURES

- Difficult for dust and debris to come onto element
- Easy equipping
- Detection of the Existence for a Fluorescent Material

APPLICATIONS

- ATM
- Vending Machine
- etc

MAXIMUM RATINGS (Ta=25˚C)

Parameter		Symbol	Rating	Unit
Input	Power Dissipation	P_D	60	mW
	Forward Current	I_F	25	mA
	Peak Forward Current (1)	I_{FP}	80	mA
	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=20mA	-	3.5	4.0	V
	Peak Wavelength	λp	I_F=20mA	-	375	-	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, Fluorescent Paper	2	-	20	mA
	Low Level Output Voltage	V_{OL}	L=4mm, V_{DD}=5V, I_{TAR}(3), Non-Fluorescent Paper	-	-	1	V
Response Time	Rise Time	tr		-	160	-	μs
	Fall Time	tf		-	150	-	μs

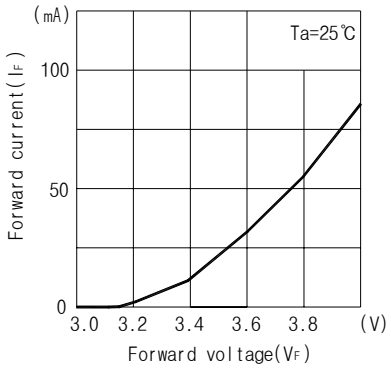
Note 2. V_{TAR} = Target Voltage = 4.5V

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

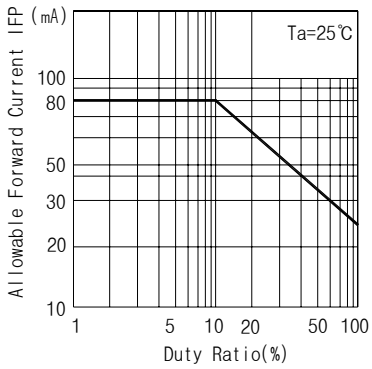
Note 4. Fluorescent Paper = HP Bright white inkjet paper (C5977B)

KME-M001C

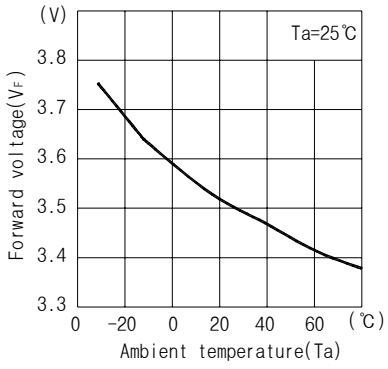
Forward current Vs.
Forward voltage



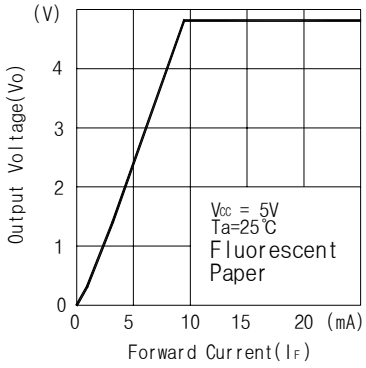
Duty Ratio Vs.
Allowable Forward Current



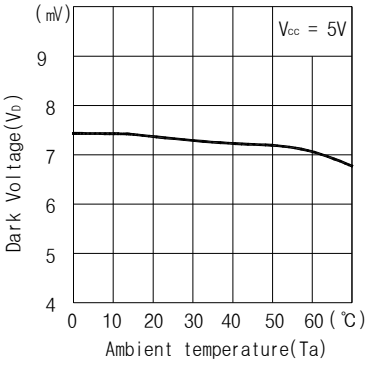
Relative Collector Current Vs.
Ambient temperature



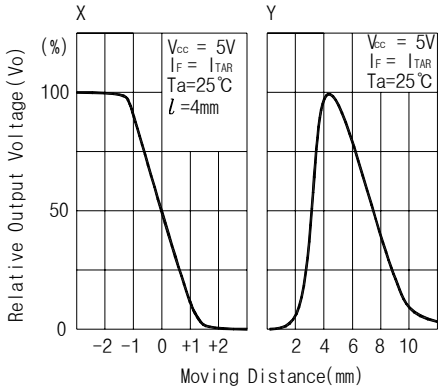
Output VoltageVs.
Forward Current



Ambient temperature



Relative Output Voltage Vs.
Moving distance



Method of measuring position detection characteristic