

Ref. No.	- PI -
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**MS-IT02**



**MOK SAN ELECTRONIC CO., LTD.**

Q.A	CHECKED	APPROVED

## 1. Description

The MS-IT02 is high-performance standard type, combines high-output GaAs IRED with sensitive photo transistor.

## 2. Feature

- 1) Wide Application
- 2) Easy to be mounted on PCB
- 3) High speed response

## 3. Absolute Maximum Ratings.

(Ta=25°C)

Parameter		Symbol	Ratings	Unit
Input	Forward Current	IF	60	mA
	Reverse Voltage	VR	5	V
	Power Dissipation	PD	100	mW
	Pulse forward Current	IFP	1	A
Output	C-E Voltage	V <sub>CEO</sub>	30	V
	E-C Voltage	V <sub>ECO</sub>	5	V
	Collector Current	I <sub>C</sub>	40	mA
	Collector Power	P <sub>C</sub>	100	mW
Operating Temperature		T <sub>opr</sub>	-20 ~ +85	°C
Storage Temperature		T <sub>stg</sub>	-30 ~ +85	°C
Soldering Temperature		T <sub>sol</sub>	*240	°C

\* for within 5 sec

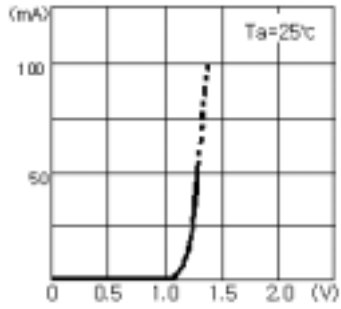
## 4. Electro - Optical Characteristics.

(Ta=25°C)

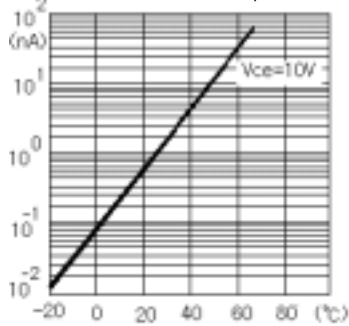
Parameter		Symbol	Test Condition	Min	Typ	Max	Unit
Input	Forward Voltage	VF	IF=30mA		1.2	1.5	V
	Reverse Current	IR	VR=5V			10	μA
	Capacitance	Ct	V=0V, F=1kHz		25		pF
	Peak Wavelength	λP	IF=20mA		940		nm
Output	Collector Dark Current	I <sub>CEO</sub>	V <sub>CE</sub> =10V			0.1	μA
Light Current		IL	V <sub>CE</sub> =5V, IF=20mA	0.3			mA
C-E Saturation Voltage		V <sub>CE</sub>	IF=30mA, Ic=0.1mA			0.4	V
Switching speed	Rise Time	tr	V <sub>CC</sub> =5V, Ic=2mA		5		μsec
	Fall time	tf	RL=100Ω		5		μsec

## 5. Typical Characteristics

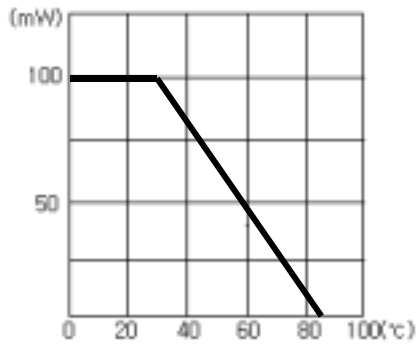
■ Forward Current vs. Forward Voltage



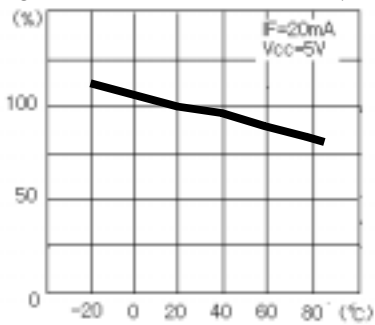
■ Collector Dark Current Vs. Ambient Temperature



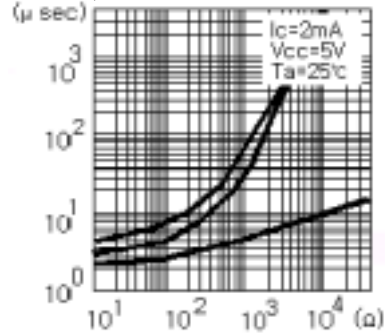
■ Collector Power Dissipation Vs. Ambient Temperature



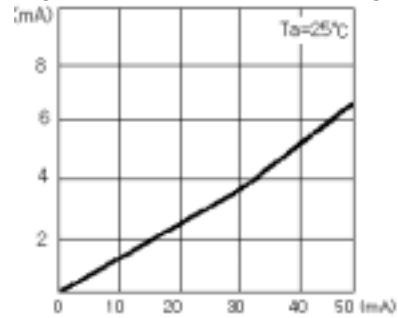
■ Light Current vs. Ambient Temperature



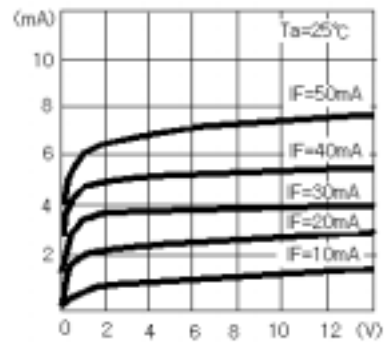
■  $T_r, T_f$  Load Resistance



■ Light Current vs. Forward Voltage



■ Vs C-E Saturation Voltage



## 6. DIMENSION

Tolerance :  $\pm 0.2\text{mm}$

