Photo Interrupter

KIT5016A

Description

The KIT5024A is a high performance transmissive type photo interrupter, combines high-output GaAs IRED with high sensitive phototransistor.

Features

- High speed response
- 5mm gap
- RoHS compliant

Applications

- Printers.
- Copiers
- Fax

Absolute Maximum Ratings (T_a=25℃, Unless otherwise specified)

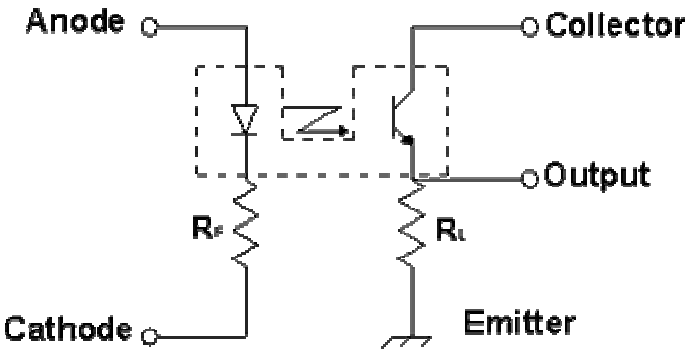
Characteristic		Symbol	Ratings	Unit
Input	Power Dissipation	P_D	100	㎽
	Forward Current	I_F	60	㎃
	Reverse Voltage	V_R	5	V
	Peak Forward Current[*1]	I_{FM}	1	A
Output	Collector Dissipation	P_C	100	㎽
	Collector Current	I_C	40	㎃
	Collector-Emitter Voltage	V_{CEO}	30	V
	Emitter-Collector Voltage	V_{ECO}	5	V
Operating Temperature [*3]		T_{opr}	-20 ~ +85	℃
Storage Temperature [*3]		T_{stg}	-30 ~ +85	℃
Soldering Temperature [*4]		T_{sol}	260	℃
ESD Withstand Voltage (Human Body Model)		V_{ESD}	±2.0	kV

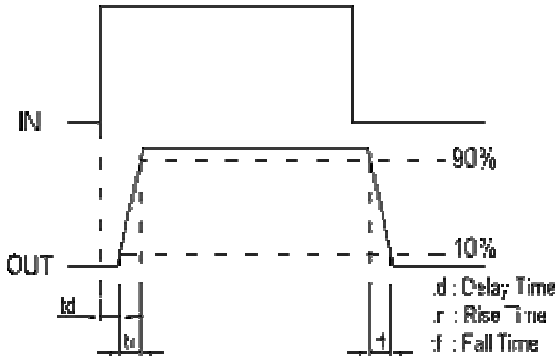
*1 : Pulse width ≤ 100usec ; Duty factor : 1%.

Electrical Characteristics (T_a=25℃)

Characteristic		Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V_F	I_F = 20mA	-	1.2	1.7	V
	Reverse Current	I_R	V_R = 5V	-	-	10	μA
	Peak Wavelength	λ_p	I_F = 20mA	-	940	-	nm
Output	Dark Current	I_{CEO}	V_{CE} = 10V, 0 Lux	-	-	100	μA
Transfer Charac-teristics	Collector Current	I_C	I_F=20mA, V_{CE}=5V, Non-shading	0.5	-	14	mA
	C-E Saturation Voltage	$V_{CE(sat)}$	I_F = 20mA, I_C = 0.1mA	-	-	0.4	V
Response Time	Rise Time	t_r	V_{CC}=5V, I_C=0.1mA, R_L=100Ω	-	5	-	μs
	Fall Time	t_f		-	5	-	μs

* Circuit for Measuring Response Time





Package Outline Dimensions