



KODENSHI

- 特長 FEATURES**
- 0.5mm aperture
 - High-speed response
 - Easy to mount on P.C.B.
 - Widely applicable
- 用途 APPLICATIONS**
- Tape-end sensors
 - Timing sensors
 - Edge sensors
 - Copiers

最大定格 MAXIMUM RATINGS

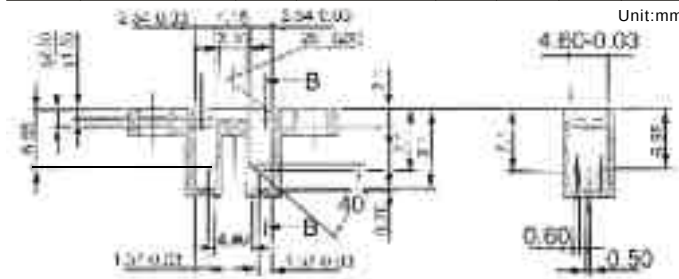
Item	Symbol	Rating	Unit
Input	Power dissipation	P_D	100
	Reverse voltage	V_R	5
	Forward current	I_F	60
	Pulse forward current*1	I_{FP}	1
Output	Collector power dissipation	P_C	100
	Collector current	I_C	40
	C-E voltage	V_{CEO}	30
	E-C voltage	V_{ECO}	5
Operating temp.	T_{opr}	-20~+85	°C
Storage temp.	T_{stg}	-30~+85	°C
Soldering temp.*2	T_{sol}	240	°C

*1 $t_w = 100 \mu\text{sec}$, $T = 10\text{msec}$.

*2 $t = 5\text{sec}$.

電氣的光學的特性 ELECTRO-OPTICAL CHARACTERISTICS

Item	Symbol	Conditions	Min.	Max.	Unit
Input	Forward voltage	V_F $I_F = 30\text{mA}$	1.2	1.5	V
	Reverse current	I_R $V_R = 5\text{V}$		10	μA
	Capacitance	C_t $V = 0, f = 1\text{KHz}$		25	pF
	Peak wavelength	λ_p $V_{CE} = 10\text{V}$		940	nm
Output	Collector dark current	I_{CO}		0.1	μA
Light current	I_L	$V_{CE} = 5\text{V}, I_F = 20\text{mA}$	0.3		mA
C-E saturation voltage	$V_{CE(sat)}$	$I_F = 30\text{mA}, I_C = 0.1\text{mA}$		0.4	V
Switching speeds	Risetime	t_r $V_{CE} = 5\text{V}$		5	μsec
	Falltime	t_f $I_C = 2\text{mA}$ $R_L = 100\Omega$		5	μsec



Part No.	Product No.	Manuf.	Description
2931	FI-23FF	KODENSHI	Transistor Output 光遮斷器



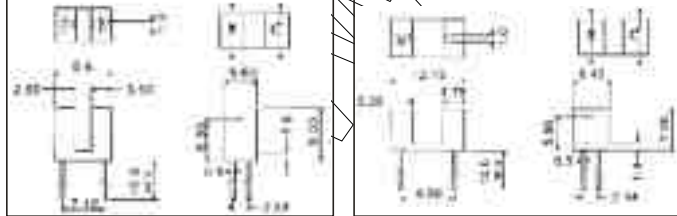
Photo Interrupter & Reflector

$T_a = 25^\circ\text{C}$

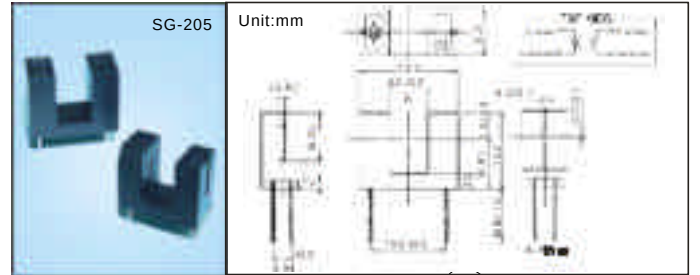
Device No.	Feature	Electro-optical Characteristics						
		I_{cMin}	I_F	V_{CE}	$I_{CEO Max}$	$T_r Typ$	$T_f Typ$	$V_{CE(sat) Max}$
HINT-2600	gap=2.6mm	1.5	20	5	20	15	15	0.4
HINT-5200	gap=5.2mm	0.6	20	5	20	5	5	1.0

HINT-2600

HINT-5200



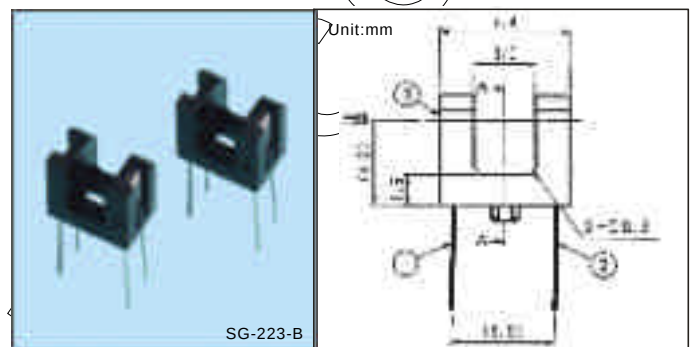
Part No.	Product No.	Description
16269	HINT-2600	光遮斷器 5Vce 20mA gap=2.6mm
16270	HINT-5200	光遮斷器 5Vce 20mA gap=5.2mm



SG-205 Unit:mm

Absolute Maximum Ratings						
I_F (mA)	V_R (V)	P_D (mW)	V_{CE} (V)	I_C (mA)	P_C (mW)	T_{opr} (°C)
100	5	100	30	40	100	-20~+85
V_F (V)	I_R (μA)	I_{CEO} (A)	I_C (mA)	$V_{CE(sat)}$ (V)	t_r (μs ec.)	
$I_F = 30\text{mA}$	$V_R = 5\text{V}$	$V_{CE} = 10\text{V}$	$I_F = 20\text{mA}, V_{CE} = 5\text{V}$	$I_F = 30\text{mA}, I_C = 0.1\text{mA}$	$k = 2\text{mA}, R_F = 100\Omega$	
Max. 1.5	Max. 10	Max. 1×10^{-7}	Min. 0.5	Max. 0.4	Typ. 5	

Part No.	Product No.	Description
7847	SG-205	Transistor Output 光遮斷器



Unit:mm

ABSOLUTE MAXIMUM RATINGS			
ITEM	SYMBOL	RATINGS	UNIT
INPUT LED	POWER DISSIPATION	P_D	75
	FORWARD CURRENT	I_F	50
	REVERSE VOLTAGE	V_R	5
	PULSE F.O. CURRENT*1	I_{FP}	0.5
OUTPUT DETECTOR	COLLECTOR DISSIPATION	P_C	75
	COLLECTOR CURRENT	I_C	20
	C-E VOLTAGE	V_{CEO}	30
	E-C VOLTAGE	V_{ECO}	5
RATE OF DECREASE OF TEMP. FOR FORWARD CURRENT*2		$\Delta I_F / \Delta T_a$	-0.67
RATE OF DECREASE OF TEMP. FOR COLLECTOR DISSIPATION*2		$\Delta P_C / \Delta T_a$	-1.00
OPERATING TEMPERATURE*3		T_{opr}	-25~+85
STORAGE TEMPERATURE*3		T_{stg}	-30~+100
SOLDERING TEMPERATURE*4		T_{sol}	260

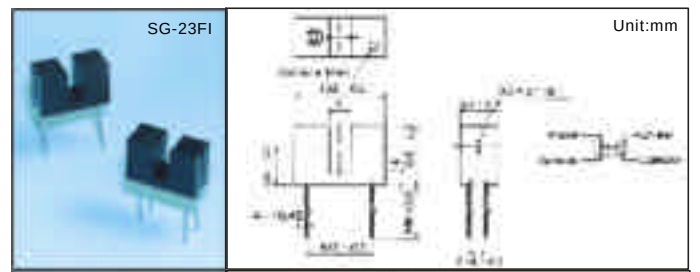
*1 PULSE WIDTH $t_w \leq 100\mu\text{sec}$ PERIOD $T = 10\text{msec}$

*2 $T_a = 25^\circ\text{C}$, $T_{opr} = 10\text{msec}$

*3 NOTICE BOUNDORSEW

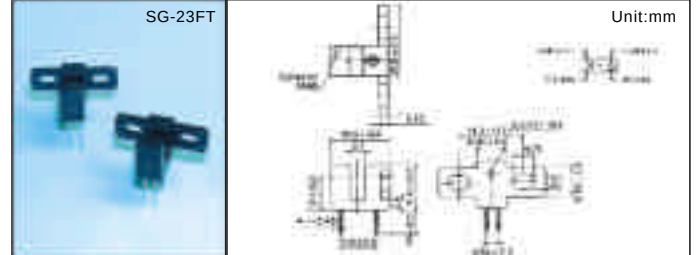
*4 THE SOLDERING SHOULD BE 1mm AWAY FROM BOTTOM OF THE HOLDER ($T = \text{WITHIN } 5\text{sec}$)

Part No.	Product No.	Description
16145	SG-223-B	Transistor Output 光遮斷器



SG-23FI

Unit:mm



SG-23FT

Unit:mm

Absolute Maximum Ratings						
I_F (mA)	V_R (V)	P_D (mW)	V_{CE} (V)	I_C (mA)	P_C (mW)	T_{opr} (°C)
60	5	100	30	40	100	-20~+85
V_F (V)	I_R (μA)	I_{CEO} (A)	I_C (mA)	$V_{CE(sat)}$ (V)	t_r (μs ec.)	
$I_F = 30\text{mA}$	$V_R = 5\text{V}$	$V_{CE} = 10\text{V}$	$I_F = 20\text{mA}, V_{CE} = 5\text{V}$	$I_F = 30\text{mA}, I_C = 0.1\text{mA}$	$k = 2\text{mA}, R_F = 100\Omega$	
Max. 1.5	Max. 10	Max. 1×10^{-7}	Min. 0.3	Max. 0.4	Typ. 5	

Part No.	Product No.	Description
7846	SG-23FI	Transistor Output 光遮斷器
3850	SG-23FT	Transistor Output 光遮斷器