

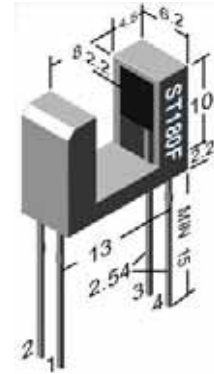
ST180F

● Features

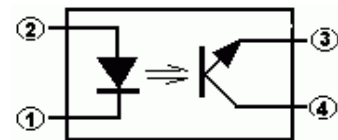
- Dust-proof package, for cards position detection.
- Combines high output GaAs IRED with high sensitive phototransistor.
- Non-contact detecting manner.

● Dimensions Unit:mm

Unless otherwise specified, the tolerances are $\pm 0.2\text{mm}$



Internal Circuit



● Absolute Maximum Ratings(Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward Current	I_F	50	mV
	Reverse Voltage	V_R	6	V
	Power Dissipation	P	75	mW
Output	Collector-Emitter Voltage	V_{CEO}	25	V
	Emitter-Collector Voltage	V_{ECO}	6	V
	Collector Power Dissipation	P_C	50	mW
*Operating Ttemperature		T_{opr}	-20~65	°C
Storage Temperature		T_{stg}	-30~75	°C
** Soldering Temperature		T_{sol}	260	°C

*The special requirememd could be met according to customer's request..

**Soldering time: 5s max. Soldering position: at least 1.5mm from the base of the package.

● Electro-Optical Characteristics (Ta=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V_F	$I_F=20\text{mA}$	-	1.25	1.5	V
	Reverse Current	I_R	$V_R=3\text{V}$	-	-	10	μA
Output	Collector Dark Current	I_{CEO}	$V_{CE}=20\text{V}$	-	-	1	μA
	Collector Light Current	I_L	$V_{CE}=5\text{V}$ $I_F=8\text{mA}$	0.4	-	-	mA
	Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_F=8\text{mA}$ $I_C=0.15\text{mA}$	-	-	0.4	V
Transfer Character-istics	Response Time	Rise Time	$I_F=20\text{mA}$ $V_{CE}=5\text{V}$	-	5	-	μS
		Fall Time	$R_C=100\Omega$	-	5	-	μS