

1. Scope :

This specification applies to NPN silicon phototransistor chips,
Device No. ST-0139.

2. Structure :

- 2-1. Planar type .
- 2-2. Electrodes :
 - N (collector) side : gold alloy.
 - P (base) side : aluminum alloy .
 - N (emitter) side : aluminum alloy.

3. Size :

- 3-1. Chip size : 430 μm × 660 μm.
- 3-2. Chip thickness : 7.5 ±1.5 mils (0.191 ±0.038 mm).
- 3-3. Active area : 11.25 mils × 20.31 mils (0.286 mm ×0.516 mm).
- 3-4. Pattern drawing : refer to the attached drawing.

4. Electro-optical characteristics (Ta = 25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Collector-emitter Breakdown Voltage	BVCEO	IC=100uA IB=0	70			V
Emitter-collector Breakdown Voltage	BVECO	IE=10uA IB=0	7			V
Collector dark current	ICEO	VCE=20V H=0mw/cm ²			60	nA
Collector-emitter Saturation Voltage	VCE(S)	Ic=2mA IB=100uA			0.2	V
Current gain	hFE	VCE=5V IC=2mA	200			

