

1. Scope :

This specification applies to NPN silicon phototransistor chips,
Device No. ST-0132A.

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 : 32 mils × 32 mils (0.813 mm × 0.813 mm).

3-2. Real chip size : 31 mils × 31 mils ± 1 mils (0.788 mm × 0.778 mm ± 0.025 mm).

3-3. Chip thickness : 7.0 ± 1.5 mils (0.178 ± 0.038 mm).

3-4. Active area : 26 mils × 26 mils (0.650 mm × 0.650 mm).

3-5. Pattern drawing : refer to the attached drawing.

4. Electrical characteristics (Ta = 25 °C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Collector-emitter Breakdown Voltage	BV_{CEO}	$I_C=100\mu A$ $I_B=0$	30		110	V
Emitter-collector Breakdown Voltage	BV_{ECO}	$I_E=100\mu A$ $I_B=0$	5			V
Collector dark current	I_{CEO}	$V_{CE}=10V$ $H=0mw/cm^2$			100	nA
Collector-emitter Saturation Voltage	$V_{CE(S)}$	$I_C=2mA$ $I_B=100\mu A$			0.2	V
Rise/fall time	t_R/t_F	$V_{CE}=5V$ $I_C=1mA$ $R_L=1000\Omega$		20/20		μS
Current gain	h_{FE}	$V_{CE}=5V$ $I_C=2mA$	400			

h_{FE} RANK A : 400 - 800
RANK B : 600 - 1200
RANK C : 900 -

