Si Photo-transistor Chip－TK036CPTN

1. Scope

- The specification applies to NPN silicon photo-transistor chips.
- Type：TK036CPTN.

2. Structure

- NPN planar type.
- Electrode topside（anode）　：Aluminum.
  backside（cathode）：Au alloy.

3. Size

- Chip size　：36mil × 36mil ± 2mil (0.914mm × 0.914mm ± 0.05mm)
- Thickness　：10mil ± 1mil (0.250mm ± 0.025mm)
- Active area　：21mil × 21mil (0.533mm × 0.533mm)
- Pattern drawing：per fig. 1

4. Electro-Optical Characteristics

(Ta =+25 ℃)

Parameter	Symbol	Condition		Min.	Typ.	Max	Unit
Collector-emitter/Breakdown voltage	BVceo	Iceo =100μA Base open		35	---	---	V
Collector-emitter/Saturation voltage	Vce(sat)	Ib=10μA, Ic =0.4mA		---	---	0.27	V
Dark current	Iceo	Vce =10V		---	---	0.04	μA
Emitter-Collector/Breakdown voltage	BVeco	Ieco=100μA Base open		0.3		0.8	V
Current	Iebo	Veb=2V		1.67		2.5	μA
Dc current/Amplification factor	h_{FE}	Vce=5V, Ib=5μA	A	400	---	800	
			B	800	---	1500	
			C	1400	---	2200	

5. Absolute maximum ratings

Parameter	Symbol	Condition	Rating	Unit
		Chip	-40 ~ +85	oC
Storage temperature	Tstg	Chip-on-tape/sorage	0 ~ 40	oC
		Chip-on-tape/transportation	-20 ~ +65	oC
Temperature during packaging	---	---	280(<10sec)	oC

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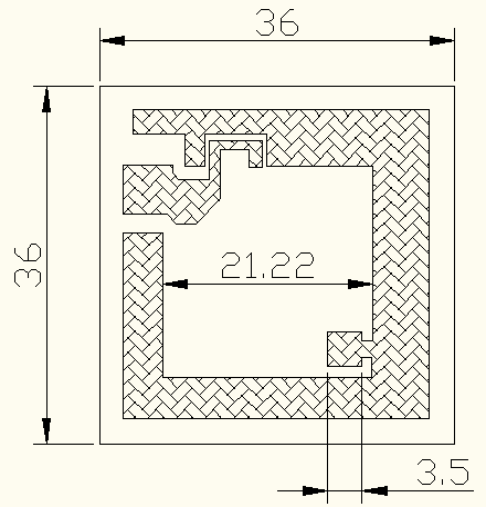

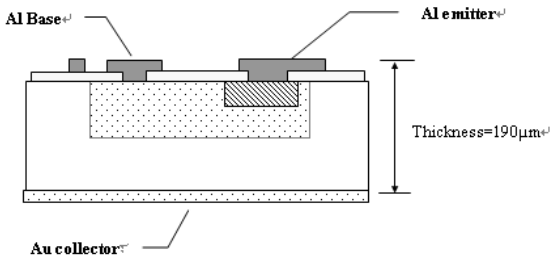

Unit：mil

fig. 1

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