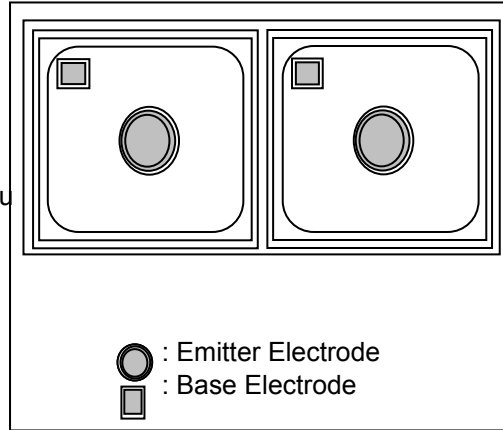


OPB1204

Silicon Photo Transistor

1. Structure

- 1.1 Chip Size : 1.2mm X 0.45mm
- 1.2 Chip thickness : 230±20um
- 1.3 Metallization : Top - Al(2um), Bottom - Au
- 1.4 Back Metal : Au(1,000 Å)
- 1.5 Passivation : Silicon Nitride
- 1.6 Bonding Pad Size
 - Emitter : 130um
 - Base : 60um X 60um



2. Electro-Optical Characteristics

(Ta=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
C-E Leakage Current	I_{CEO}			500	nA	$V_{CE}=10V$
Peak Sensing Wavelength	λ_p		880		nm	
Spectrum Sensitivity	λ	500~1,050			nm	

*Parallel light of 1,000lux illumination is applied by a tungsten lamp of 2856K.

3. Guaranteed Probed Electrical Characteristics

(Ta=25°C)

Parameter	Symbol	Min	Typ	Max	Unit	Condition
C-E Voltage	BV_{CEO}	60			V	$I_{CE}=500\mu A$
C-B Voltage	BV_{CBO}	90			V	$I_{CE}=50\mu A$
E-B Voltage	BV_{EBO}	6.5			V	$I_{CB}=50\mu A$
E-C Voltage	BV_{ECO}	5			V	$I_{EC}=50\mu A$
C-E Leakage Current	I_{CEO}			50	nA	$V_{CE}=10V$
C-E Saturation Voltage	V_{CES}			300	mV	$I_C=5mA, I_B=1mA$
Rise/Fall Time	tr/tf	15/15(Typ)			us	$V_{CE}=5V, I_C=1mA, RL=1000\Omega$
DC Current Gain	h_{FE}	400		1,600	-	$V_{CE}=10V, I_C=1mA$

4. Maximum Ratings

(Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Collector Voltage	V_{ECO}	5	V
Junction Temperature	T_J	150	°C

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