

Subminiature Photointerrupter

Model No: LBT-124

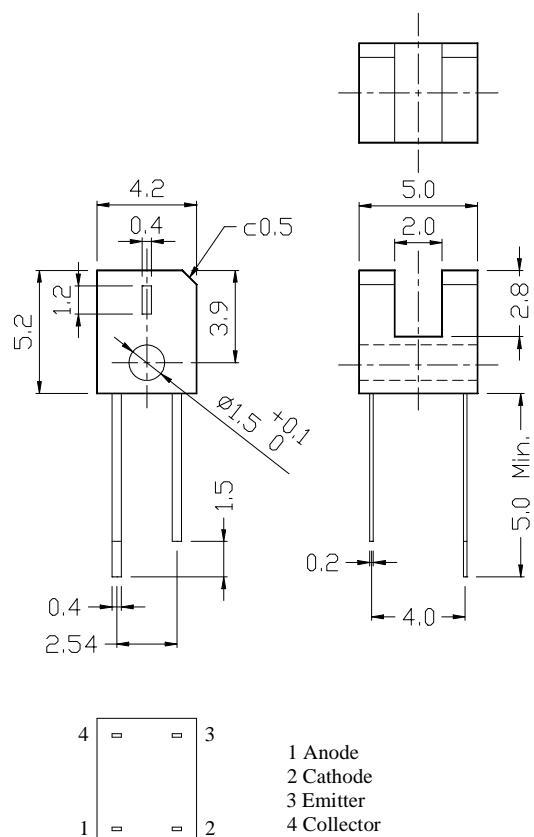
Features

- Compact package based on the double-mold method.
- High resolution (slit width = 0.4mm).
- Gap between emitter and detector is 2.0mm.

Applications

- Floppy disk drives
- Printers
- Cameras

Outline Dimensions (Unit: mm)



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Absolute Maximum Ratings (Ambient Temperature: 25°C)

Item		Symbol	Rating	Units	Note
Input	Forward current	IF	50	mA	
	Reverse voltage	VR	5	V	
	Power dissipation	PD	75	mW	
Output	Collector-emitter voltage	Vceo	30	V	
	Emitter-collector voltage	Veco	4.5	mA	
	Collector power dissipation	PC	80	mW	
Storage Temperature	Tstg	-40 to +100	°C		
Operating Temperature	Top	-25 to +85	°C		
Soldering Temperature	Tsol	260	°C	10 seconds max.	

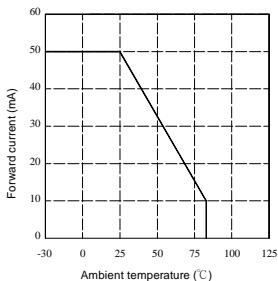
Electrical Specifications (Ambient Temperature: 25°C)

Item		Symbol	Min.	Typ.	Max.	Units	Conditions
Input	Forward voltage	VF		1.2	1.4	V	IF=20mA
	Peak forward voltage	VFM		3	4	V	IFM=0.5A
	Reverse current	IR			10	µA	VR=5V
Output	Collector dark current	Iceo			0.5	µA	Vce=10V
	Collector-emitter breakdown voltage	BVceo	30			V	Ice=50µA
	Emitter-collector breakdown voltage	BVeco	4.5			V	Iec=50µA
Combination	Collector current	Ic	0.5			mA	Vce=5V, IF=20mA
	Collector-emitter saturation voltage	Vce(sat)			0.4	V	IF=20mA, Ic=0.3A
	Response time	Tr/tf		10		µs	IF=5mA, Vcc=5V, RL=100Ω

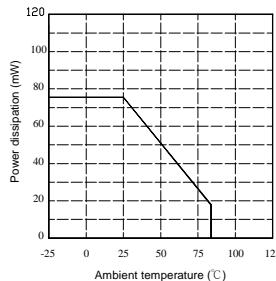
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Reference Data

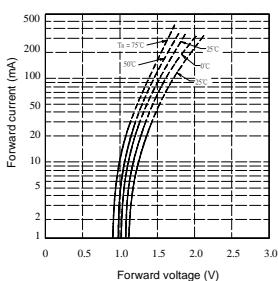
Forward current Vs.
Ambient temperature



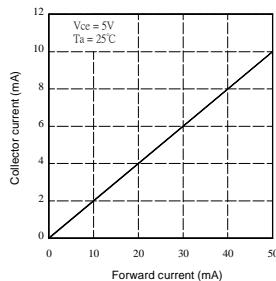
Peak forward current Vs.
Duty ratio



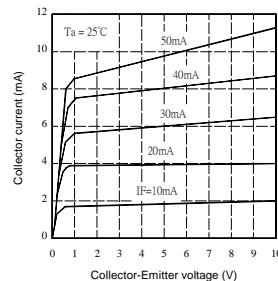
Forward current Vs.
Forward voltage



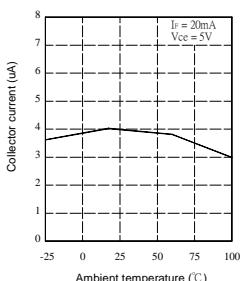
Collector current Vs.
Forward current



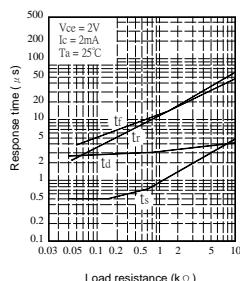
Collector current Vs.
Collector-Emitter voltage



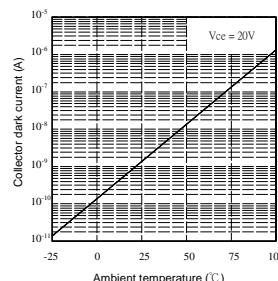
Collector current Vs.
Ambient temperature



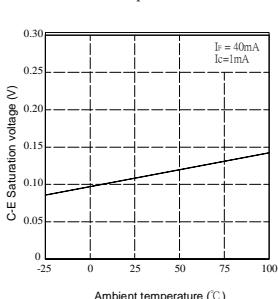
Response time Vs.
Load resistance



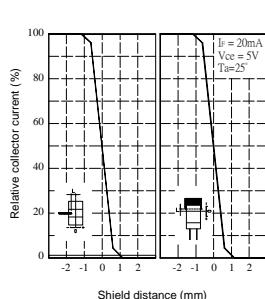
Collector dark current Vs.
Ambient temperature



C-E Saturation voltage Vs.
Ambient temperature



Relative collector current Vs.
Shield distance



Test circuit for response time

