

BRIGHT LED ELECTRONICS

Device Number : BPI-3C2-03
 Absolute Maximum Rating (Ta=25)

Page: 2
 Version: 1.1

Item		Symbol	Rating	Unit
Input	Power Dissipation	Pd	75	mW
	Reverse Voltage	V _R	5	V
	Forward Current	I _F	50	mA
	Peak Forward Current (*1)	I _{FP}	1	A
Output	Collector Power Dissipation	P _C	100	mW
	Collector Current	I _C	20	mA
	C-E Voltage	V _{CEO}	30	V
	E-C Voltage	V _{ECO}	5	V
Operating Temperature		Topr	-25 ~ +85	
Storage Temperature		Tstg	-40 ~ +100	
Soldering Temperature (*2)		Tsol	260	

(*1) tw=100 uSec., T=10 mSec.

(*2) t=5 Sec

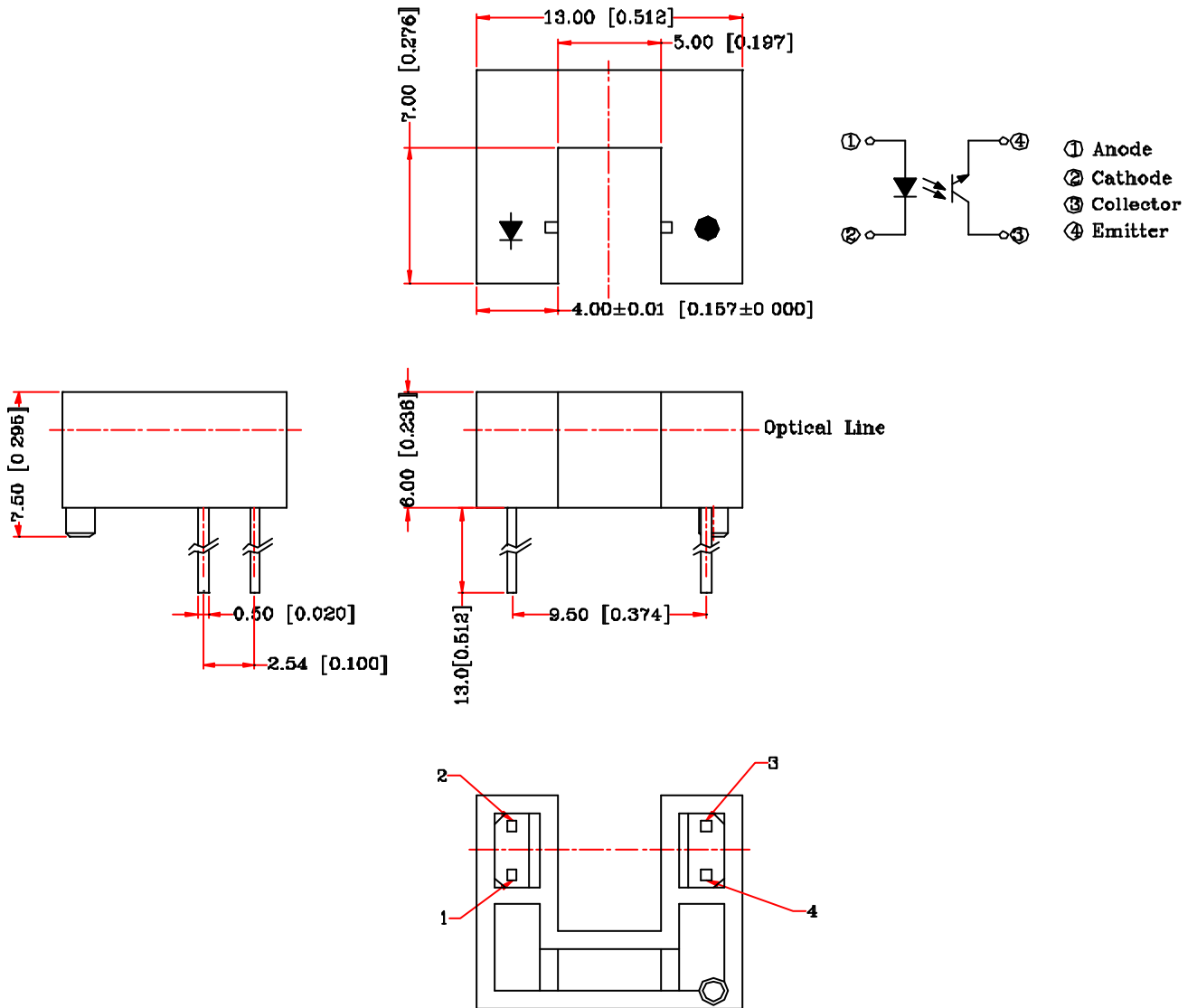
Electrical Optical Characteristics (Ta=25)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V _F	I _F =20mA	—	1.2	1.5	V
	Reverse Current	I _R	V _R =5V	—	—	100	μ A
	Peak Wavelength	ρ	I _F =10mA		940		nm
Output	Dark Current	I _D	V _{CE} =10V	—	—	100	nA
	C-E Saturation Voltage	V _{CE(sat)}	I _C =0.25mA I _F =10mA	—	—	0.4	V
Light Current		I _L	V _{CE} =5V I _F =10mA	0.5	—	5	mA
Speed	Rise Time	Tr	I _{FP} =20mA V _{CE} =5V	—	20	—	μ sec
	Fall Time	Tf	R _L =1000	—	20	—	μ sec

BRIGHT LED ELECTRONICS

Device Number : BPI-3C2-03
Package Dimensions

Page: 3
Version: 1.1



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25\text{mm}$ unless otherwise specified.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

BRIGHT LED ELECTRONICS

Device Number : BPI-3C2-03
 Typical Electrical / Optical Characteristics Curves (Ta=25)

Page: 4
 Version: 1.0

Fig.1 Power Dissipation vs. Ambient Temperature

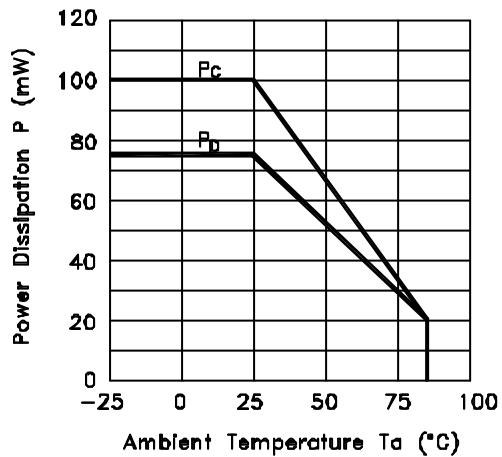


Fig.2 Forward Current vs. Forward Voltage

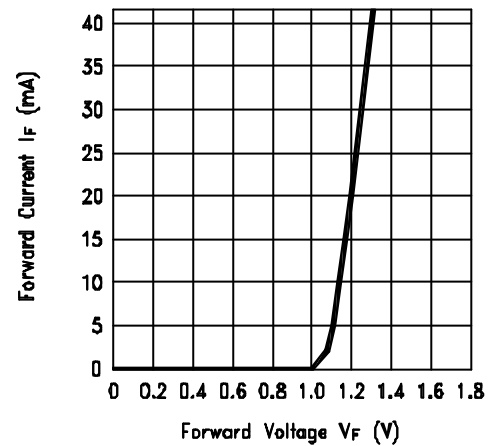


Fig.3 Collector Current vs. Collector-emitter Voltage

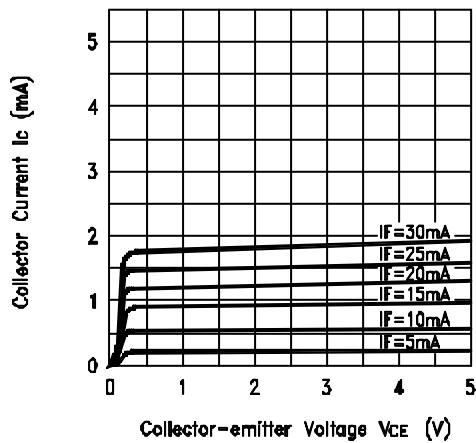
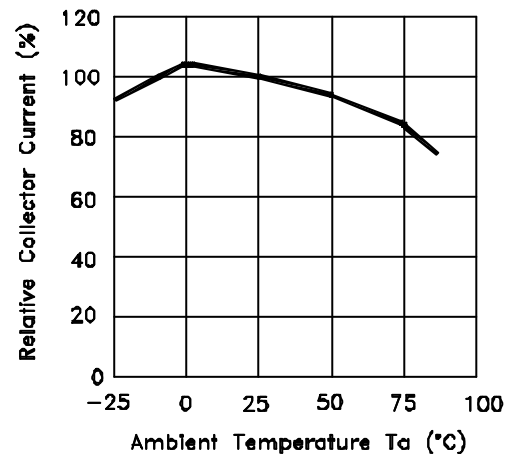


Fig.4 Collector Current vs. Ambient Temperature



BRIGHT LED ELECTRONICS

Device Number : BPI-3C2-03

Page: 5

Typical Electric / Optical Characteristics Curves (Ta=25)

Version: 1.0

Fig.5 Collector-emitter Saturation Voltage vs. Ambient Temperature

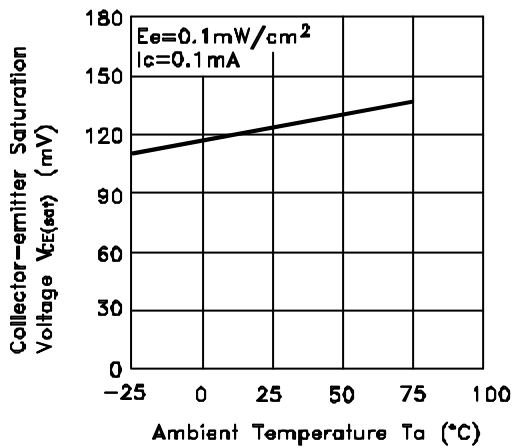


Fig.6 Response Time vs. Load Resistance

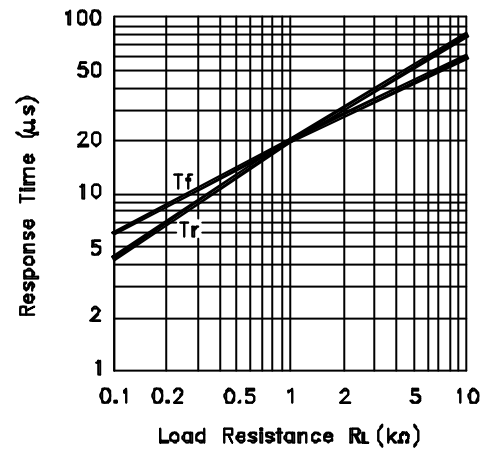
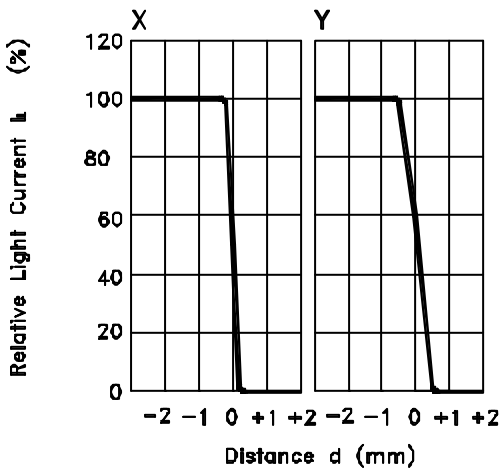
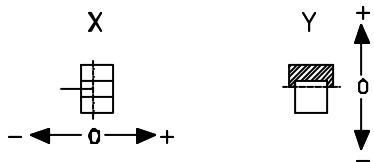


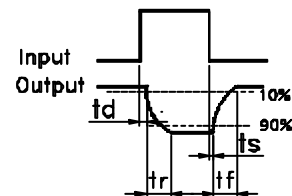
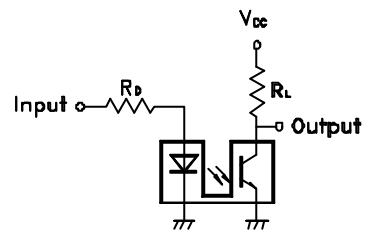
Fig.7 Sensing Position Characteristics (Typical)



(Center of Optical axis)



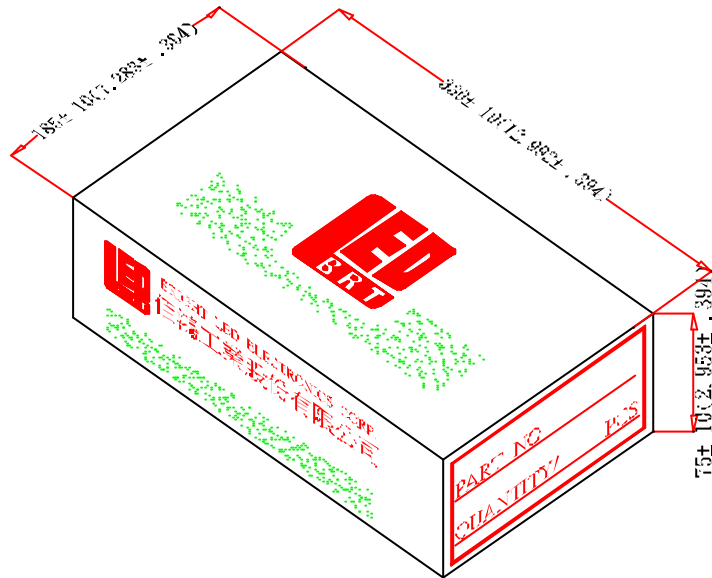
Test Circuit for Response Time



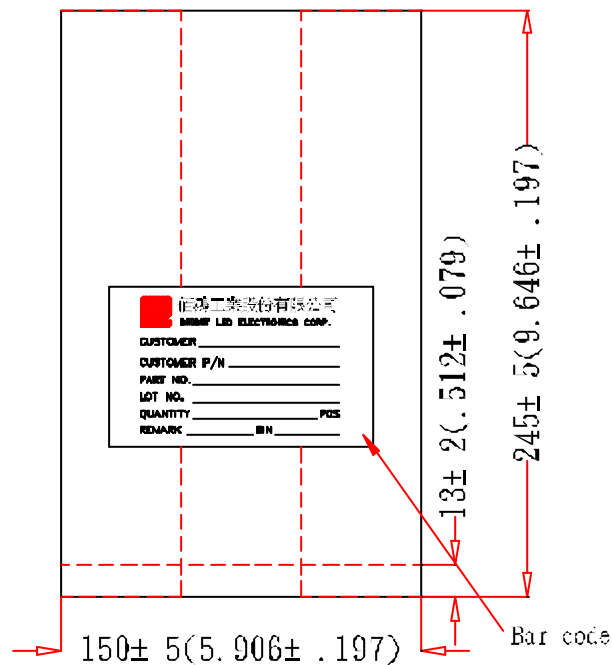
BRIGHT LED ELECTRONICS

Device Number : BPI-3C2-03
Packaging Box Dimensions

Page: 6
Version: 1.1



Packaging Bag Dimensions



Notes:

1. 500pcs per bag, 2kpcs per box.
2. All Dimensions are in millimeters (inches).
3. Specifications are subject to change without notice.