

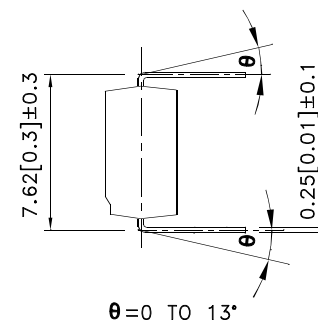
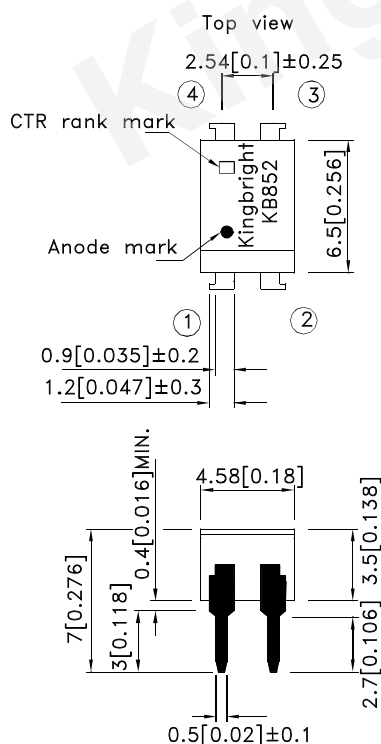
Part Number: KB852

Features

- 1.High collector-emitter voltage.
(Vceo:350V)
- 2.High isolation voltage between input and output.
(Viso:5000Vrms)
- 3.Compact dual-in-line package.
- 4.High current transfer ratio.
(CTR:MIN.1000% at IF=1mA, Vce=2V)
5. Approved by VDE 0884 Teil2(NO:40006364)
(Creepage distance between input and output:7mm or more)
- 6.RoHS compliant.

Applications

- 1.Telephone sets.
- 2.Interface with various power supply circuits, power distribution boards.



① Anode ② Cathode ③ Emitter ④ Collector

UNIT : MM[INCH]
TOLERANCE : ±0.5[±0.02] UNLESS OTHERWISE NOTED.

*Absolute Maximum Ratings (Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current	I _F	50	mA
	Reverse voltage	V _R	6	V
	Power dissipation	P	70	mW
Output	Collector-emitter voltage	V _{CEO}	350	V
	Emitter-collector voltage	V _{ECO}	0.1	V
	Collector current	I _C	150	mA
	Collector power dissipation	P _C	150	mW
Total power dissipation		P _{tot}	200	mW
*1 Isolation voltage		V _{iso}	5000	V _{rms}
Operating temperature		T _{opr}	-30 to +100	°C
Storage temperature		T _{stg}	-55 to +125	°C
*2 Soldering temperature		T _{sol}	260	°C

*1 40 to 60% RH, AC for 1 minute.

*2 For 10 seconds.

*3 Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

*Electro-optical Characteristics

Parameter			Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward voltage		V _F	I _F =10mA	-	1.2	1.4	V
	Peak forward voltage		V _{FM}	I _{FM} =0.5A	-	-	3.0	V
	Reverse current		I _R	V _R =4V	-	-	10	uA
Output	Collector dark current		I _{CEO}	V _{ce} =200V I _F =0	-	-	10 ⁻⁷	A
Transfer characteristics	Current transfer ration		CTR	I _F =1mA V _{ce} =2V	1000	4000	15000	%
	Collector-emitter saturation voltage		V _{CE (sat)}	I _F =20mA I _C =100mA	-	-	1.2	V
	Response time	Rise time	t _r	V _{ce} =2V I _C =20mA R _L =1000Ω	-	100	300	uS
		Fall time	t _f		-	20	100	uS

*1 Classification table of current transfer ratio is shown below.

$$CTR = \frac{I_C}{I_F} \times 100\%$$

Fig. 1 Forward Current vs. Ambient Temperature

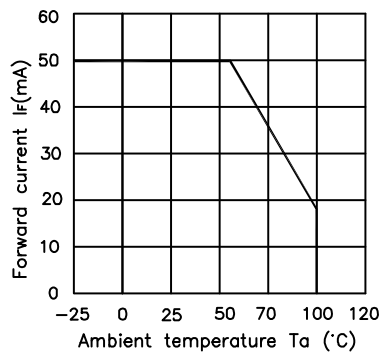


Fig. 2 Collector Power Dissipation VS Ambient Temperature

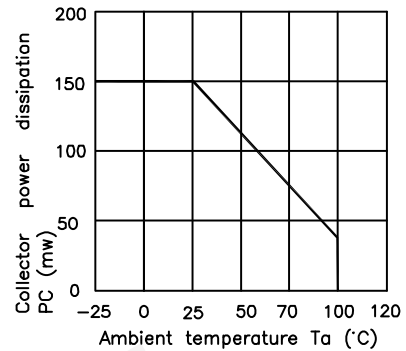


Fig. 3 Current Transfer Ratio vs. Forward Current

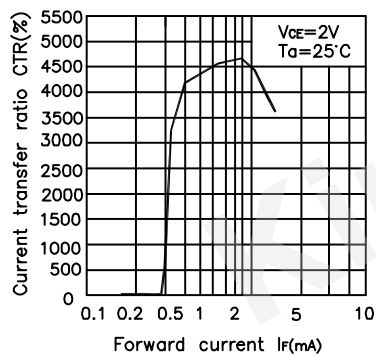


Fig. 4 Forward Current vs. Forward voltage

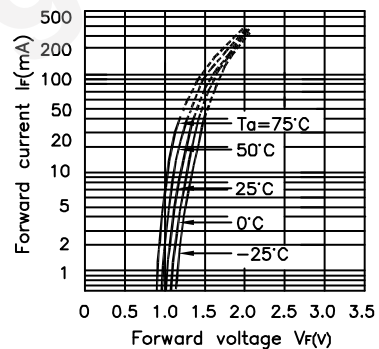


Fig. 5 Collector Current vs. Collector-emitter Voltage

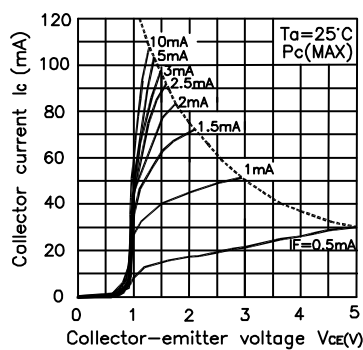


Fig. 6 Relative Current Transfer Ratio vs. Ambient Temperature

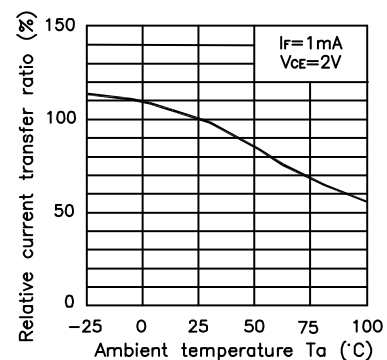
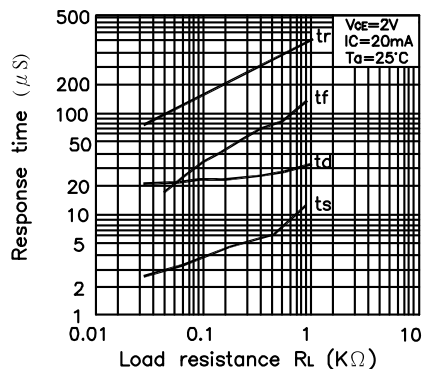


Fig. 7 Response Time vs. Load Resistance



Test Circuit for Response Time

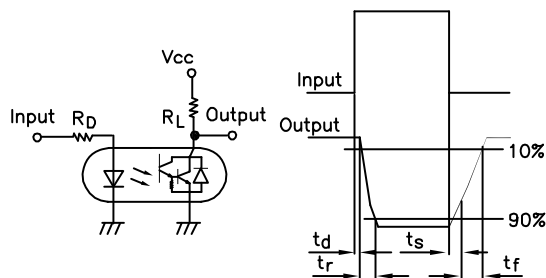


Fig. 8 Collector-emitter Saturation Voltage vs. Ambient Temperature

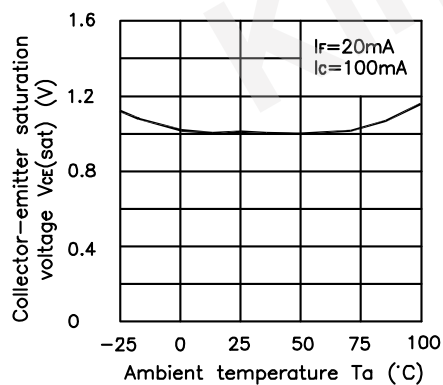
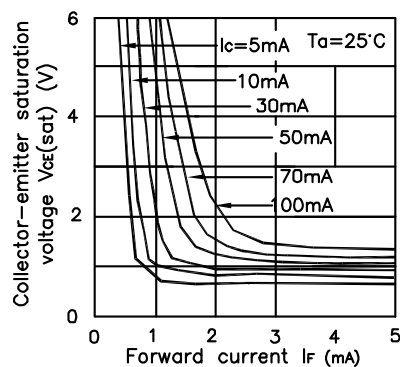


Fig. 9 Collector-emitter Saturation Voltage vs. Forward Current



* NOTES ON HANDLING

1.Recommended soldering conditions (Dip soldering)

(1) Dip soldering

Temperature	260°C or below (molten solder temperature)
Time	Less than 10 seconds.
Cycle	One cycle allowed to be dipped in solder including plastic mold portion.
Flux	Rosin flux containing small amount of chlorine (The flux with a maximum chlorine content of 0.2 Wt % is recommended.)

(2) Cautions

Fluxes

Avoid removing the residual flux with freon-based and chlorine-based cleaning solvent.

2.Cautions regarding noise

Be aware that power is suddenly into the component any surge current may cause damage happen, even if the voltage is within the absolute maximum ratings.

CAUTION

Within this device there exists GaAs (Gallium Arsenide) material which is a harmful substance if ingested. GaAs dust and fumes are toxic. Do not break, cut or pulverize the product, or use chemicals to dissolve them.

RESTRICTIONS ON PRODUCT USE

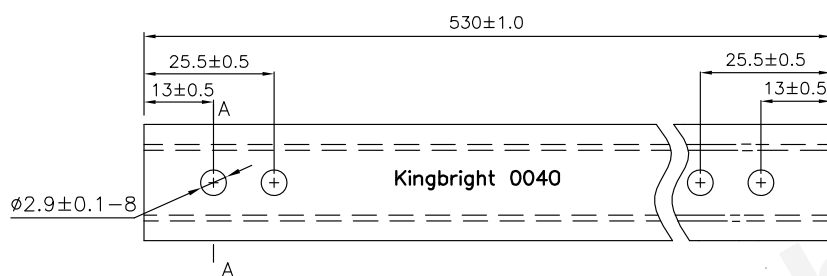
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KB852

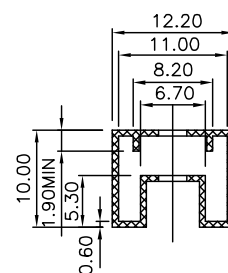
Dimension of Tube

TOLERANCE : $\pm 0.4[\pm 0.012]$ UNLESS OTHERWISE NOTED.

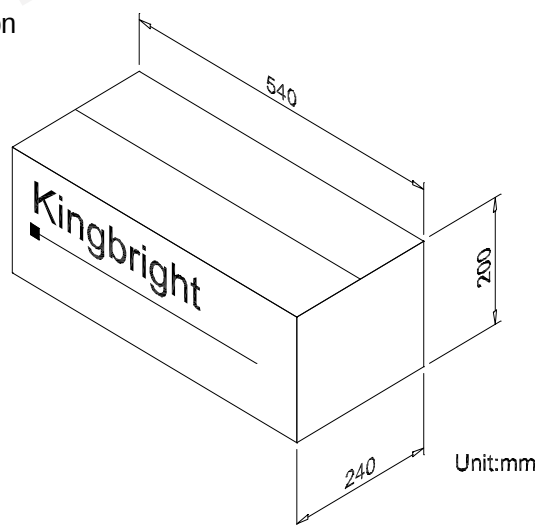
Unit:mm



A-A Side view

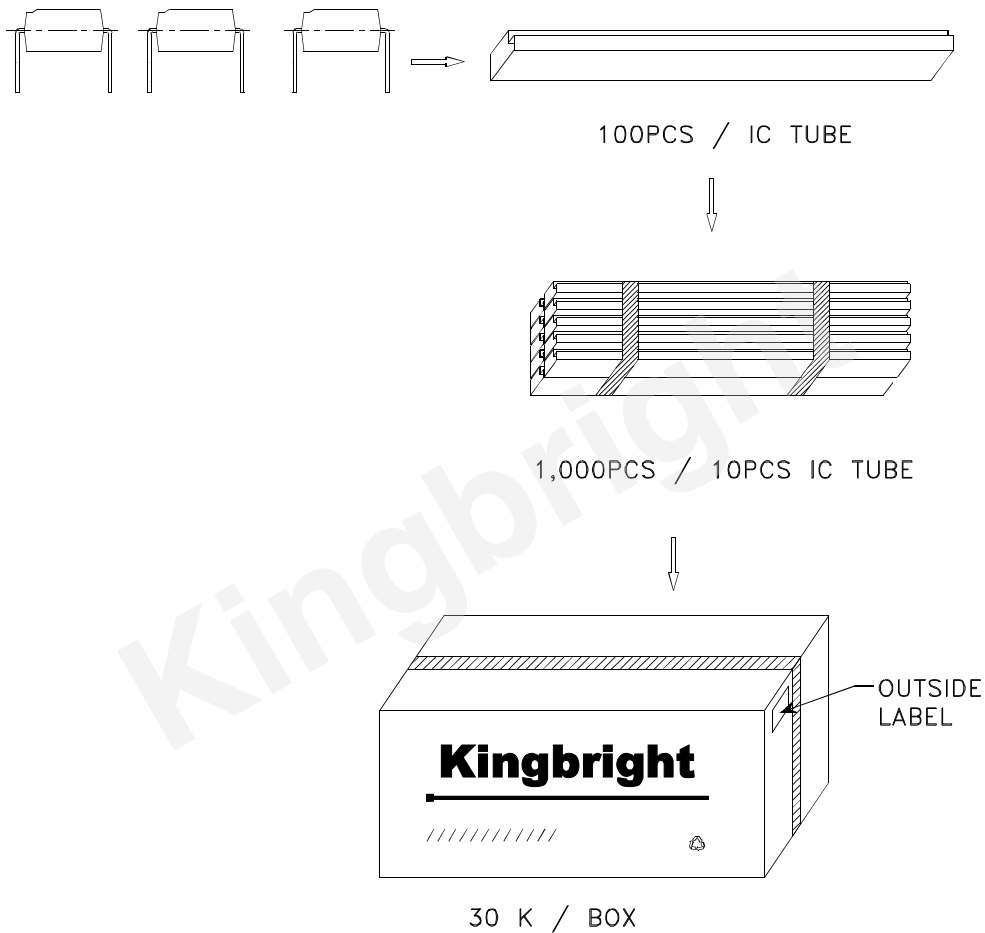


Dimension of Carton



Part Number: KB852

PACKING & LABEL SPECIFICATIONS



Kingbright	
P/NO: KB852	
QTY: 1,000 pcs	Q.C. Q C XX XX XXXX PASSED
S/N: XXXX	
CODE: XXX	
LOT NO:	
	
RoHS Compliant	