

■ Absolute Maximum Ratings

(T_a=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current	I _F	50	mA
	Reverse voltage	V _R	6	V
	Power dissipation	P _D	75	mW
Output	Collector-emitter voltage	V _{CEO}	35	V
	Emitter-collector voltage	V _{ECO}	6	V
	Collector current	I _C	20	mA
	Collector power dissipation	P _C	75	mW
Total power dissipation		P _{tot}	100	mW
Operating temperature		T _{opr}	-25 to +85	°C
Storage temperature		T _{stg}	-40 to +100	°C
*1 Soldering temperature		T _{sol}	260	°C

*1 For 5s or less

■ Electro-optical Characteristics

(T_a=25°C)

Parameter			Symbol	Condition	MIN.	TYP.	MAX.	Unit
Input	Forward voltage		V _F	I _F =20mA	–	1.2	1.4	V
	Reverse current		I _R	V _R =6V	–	–	10	μA
Output	Collector dark current		I _{CEO}	V _{CE} =20V	–	1	100	nA
Transfer characteristics	*2 Collector current		I _C	I _F =4mA, V _{CE} =2V	60	–	410	μA
	*3 Leak current		I _{LEAK}	I _F =4mA, V _{CE} =2V	–	–	700	nA
	Response time	Rise time	t _r	V _{CE} =2V, I _C =100μA, R _L =1kΩ, d=4mm	–	20	100	μs
		Fall time	t _f		–	20	100	

*2 The condition and arrangement of the reflective object are shown below.

*3 Without reflective object.

● Test Condition and Arrangement for Collector Current

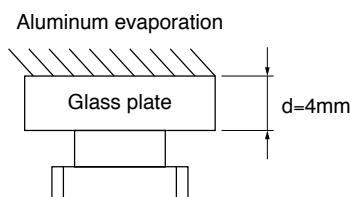


Fig.1 Forward Current vs. Ambient Temperature

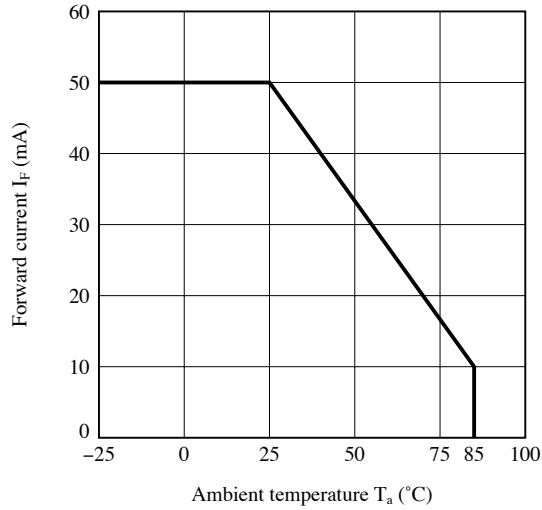


Fig.2 Collector Power Dissipation vs. Ambient Temperature

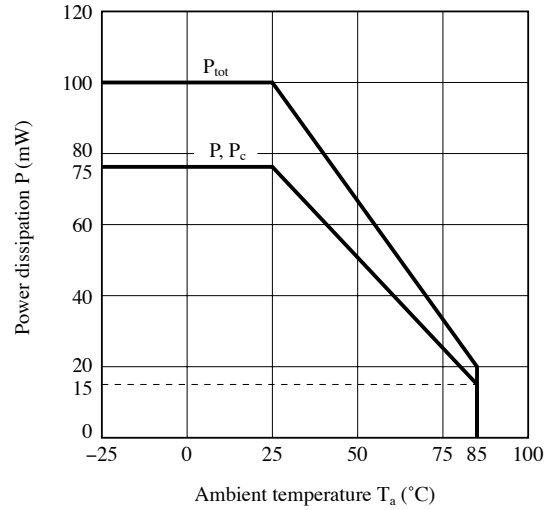


Fig.3 Forward Current vs. Forward Voltage

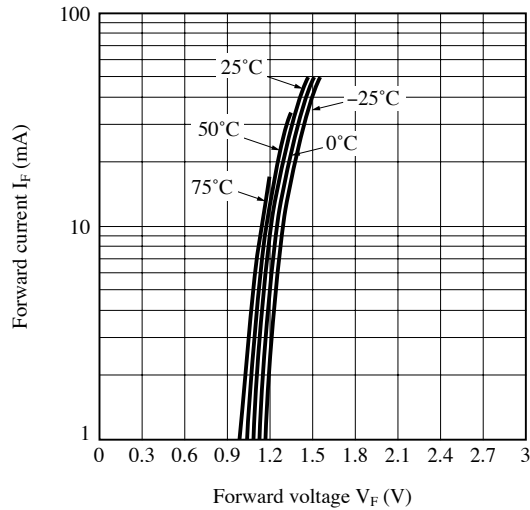


Fig.4 Relative Collector Current vs. Ambient Temperature

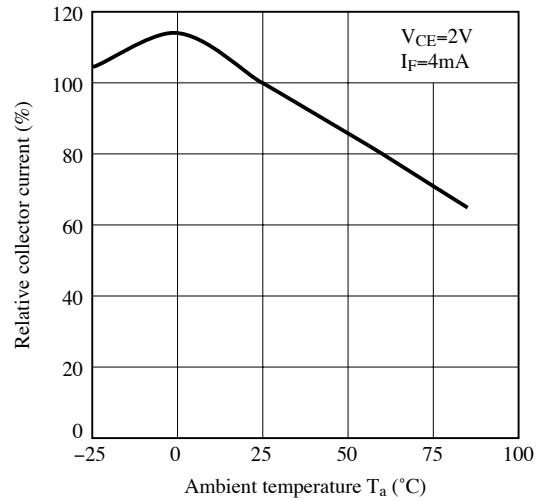


Fig.5 Collector Dark Current vs. Ambient Temperature

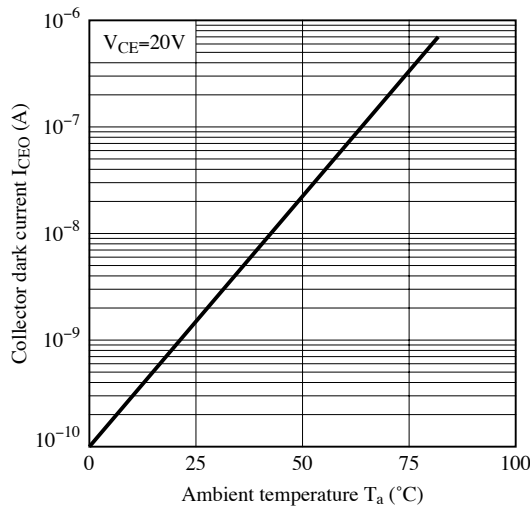


Fig.6 Response Time vs. Load Resistance

