

T-41-73

(Ta=25°C)

Electro-optical Characteristics

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	$I_F=20\text{mA}$	—	1.2	1.4	V
	Reverse current	I_R	$V_R=3\text{V}$	—	—	10	μA
Output	Collector dark current	I_{CEO}	$V_{CE}=20\text{V}$	—	—	10^{-7}	A
	Current transfer ratio	CTR	$I_F=1.5\text{mA}, V_{CE}=5\text{V}$	1.6	—	16	%
Transfer characteristics	Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_F=3\text{mA}, I_C=15\mu\text{A}$	—	0.07	0.4	V
	Response time (Rise)	t_r	$I_C=0.1\text{mA}, V_{CE}=5\text{V}, R_L=1\text{k}\Omega$	—	50	150	μs
	Response time (Fall)	t_f		—	50	150	μs

Fig. 1 Forward Current vs. Ambient Temperature

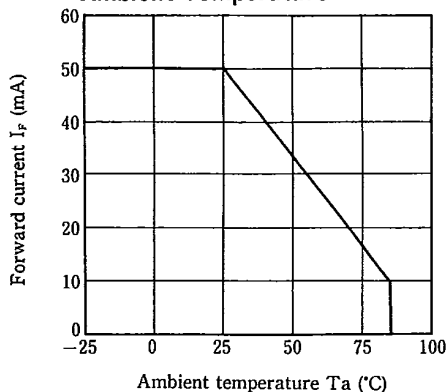


Fig. 2 Power Dissipation vs. Ambient Temperature

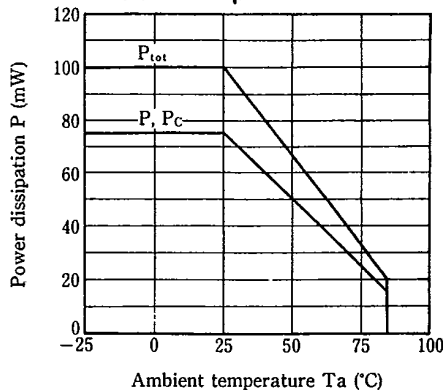


Fig. 3 Forward Current vs. Forward Voltage

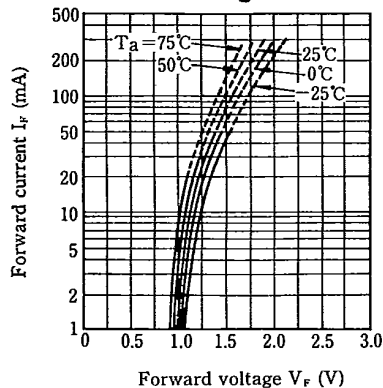


Fig. 4 Collector Current vs. Forward Current

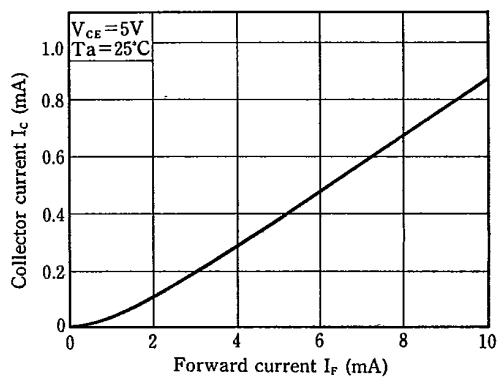


Fig. 5 Collector Current vs. Collector-emitter Voltage

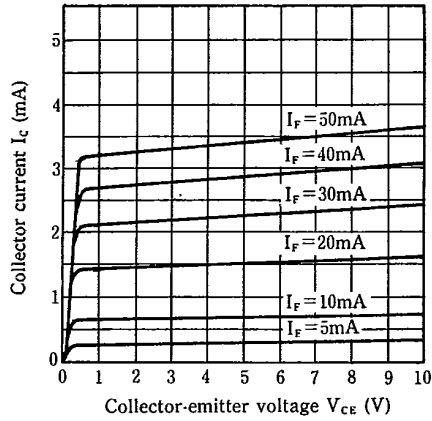


Fig. 6 Relative Collector Current vs. Ambient Temperature

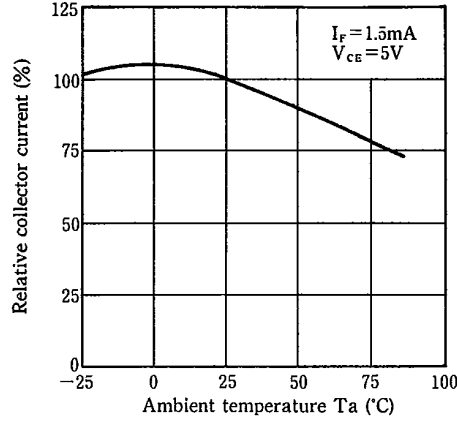


Fig. 7 Collector-emitter Saturation Voltage vs. Ambient Temperature

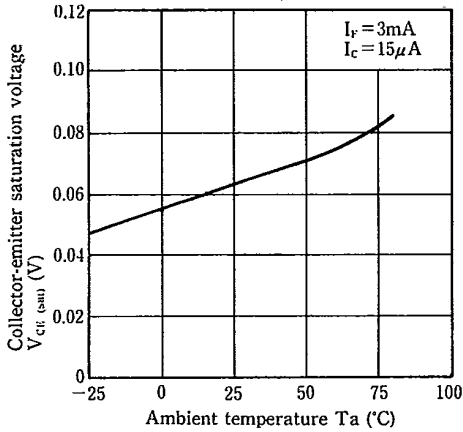


Fig. 8 Collector Dark Current vs. Ambient Temperature

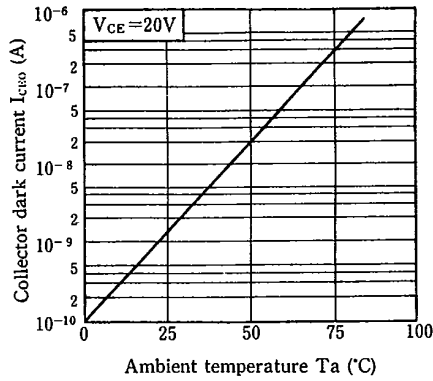
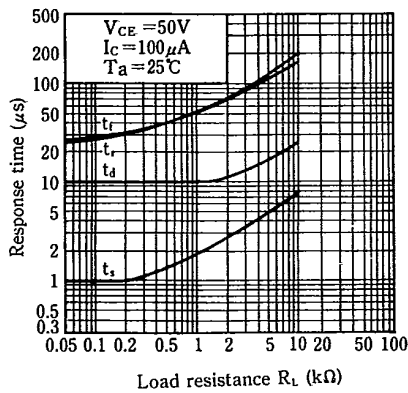
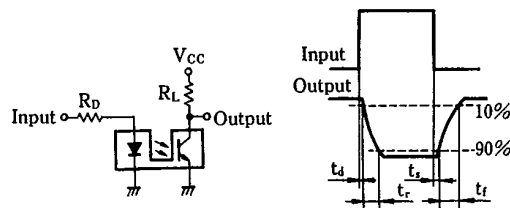


Fig. 9 Response Time vs. Load Resistance



Test Circuit for Response Time



Photointerrupter

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Fig. 10 Relative Collector Current vs. Shield Distance (1)

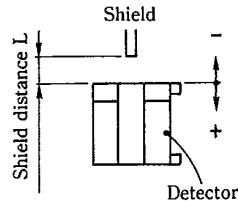
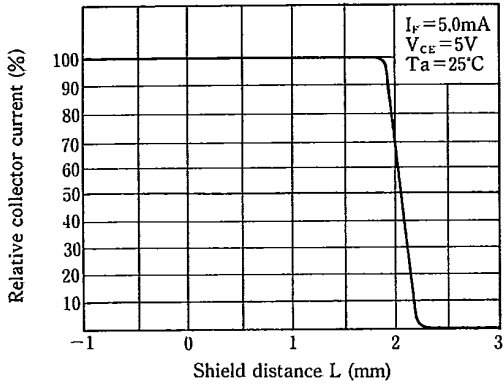


Fig. 11 Relative Collector Current vs. Shield Distance (2)

