

Electro-optical Characteristics

($T_a = 25^\circ\text{C}$)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit	
Input	Forward voltage	V_F	$I_F = 20\text{mA}$	-	1.2	1.4	V	
	Peak forward voltage	V_{FM}	$I_{FM} = 0.5\text{A}$	-	3	4	V	
	Reverse current	I_R	$V_R = 3\text{V}$	-	-	10	μA	
Output	Collector dark current	I_{CEO}	$V_{CE} = 10\text{V}$	-	-	1×10^{-6}	A	
Transfer characteristics	*3 Collector current		I_C	$V_{CE} = 5\text{V}, I_F = 20\text{mA}$	1	-	20	mA
	Response time	Rise time	t_r	$V_{CE} = 2\text{V}, I_C = 2\text{mA}$	-	80	400	μs
		Fall time	t_f	$R_L = 100\ \Omega$	-	70	350	μs
	*4 Leak current		I_{LEAK}	$V_{CE} = 5\text{V}, I_F = 20\text{mA}$	-	-	5	μA

*3 The condition and arrangement of the reflective object are shown in the right drawing.

*4 Without reflective object

Test Condition and Arrangement for Collector Current

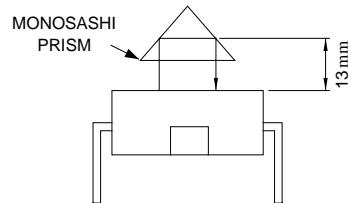


Fig. 1 Forward Current vs. Ambient Temperature

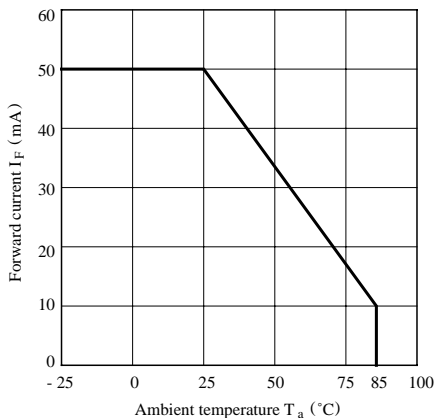


Fig. 2 Collector Power Dissipation vs. Ambient Temperature

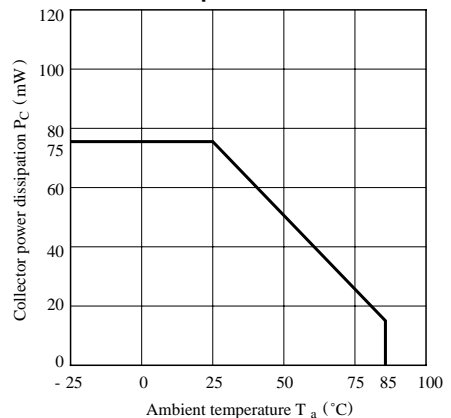


Fig. 3 Peak Forward Current vs. Duty Ratio

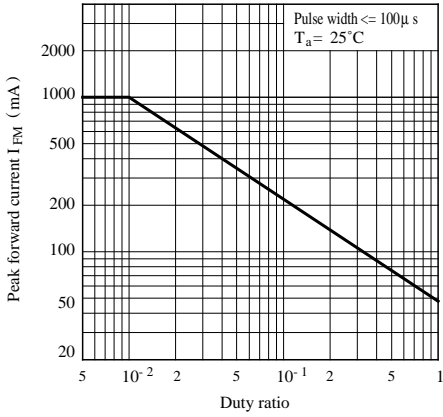


Fig. 4 Forward Current vs. Forward Voltage

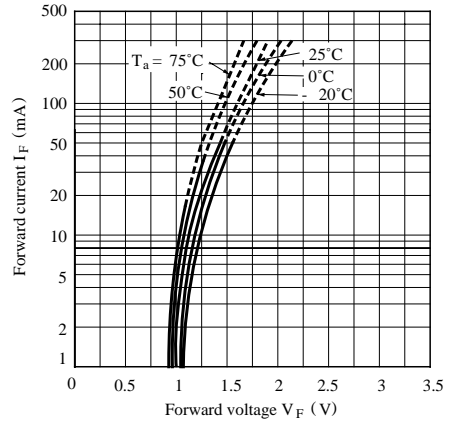


Fig. 5 Collector Current vs. Forward Current

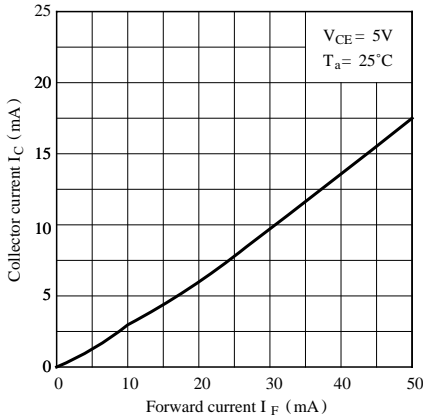


Fig. 6 Collector Current vs. Collector-Emitter Voltage

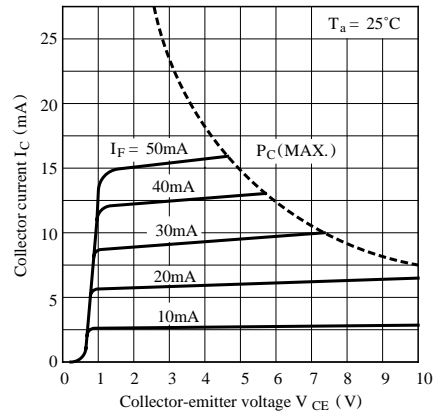


Fig. 7 Relative Collector Current vs. Ambient Temperature

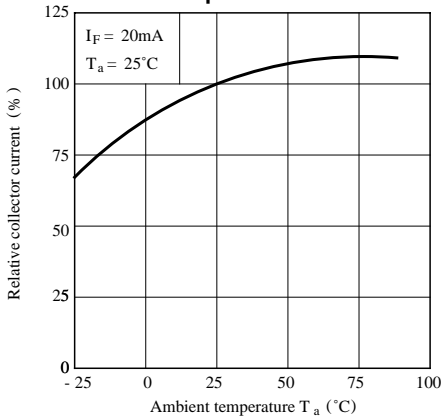
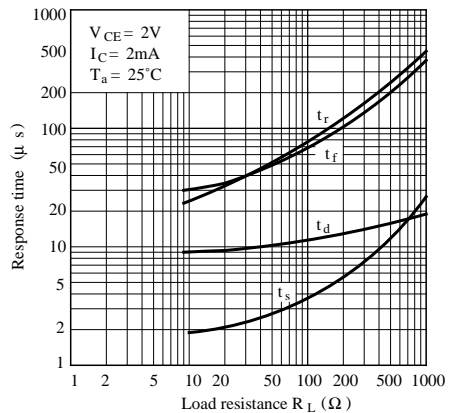


Fig. 8 Response Time vs. Load Resistance



Test Circuit for Response time

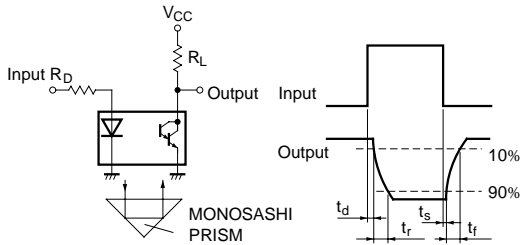


Fig. 9 Frequency Response

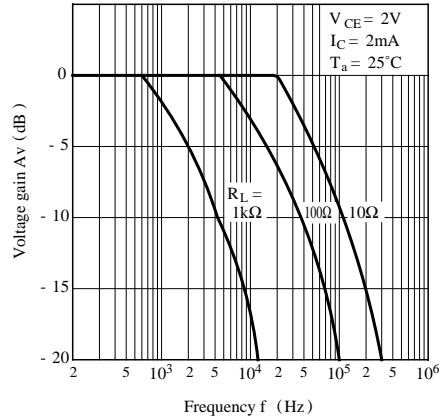
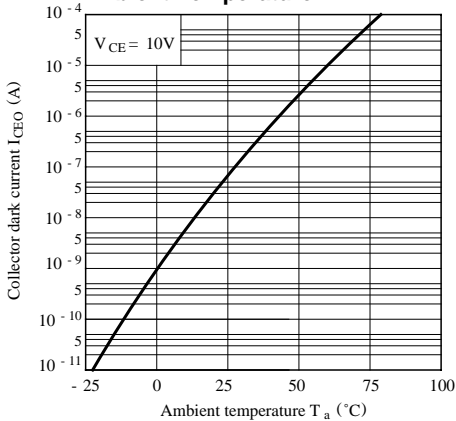


Fig.10 Collector Dark Current vs. Ambient Temperature



- Please refer to the chapter “Precautions for Use”.