



■ Electro-optical Characteristics

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

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit	
Input	Forward voltage	$V_F$	$I_F = 10\text{mA}$	-	1.2	1.4	V	
	Peak forward voltage	$V_{FM}$	$I_{FM} = 0.5\text{A}$	-	-	3	V	
	Reverse current	$I_R$	$V_R = 4\text{V}$	-	-	10	$\mu\text{A}$	
	Terminal capacitance	$C_t$	$V = 0, f = 1\text{kHz}$	-	30	250	pF	
Output	Collector dark current	$I_{CEO}$	$V_{CE} = 200\text{V}, I_F = 0, R_{BE} = \infty$	-	-	$10^{-6}$	A	
Transfer characteristics	Current transfer ratio	CTR	$I_F = 1\text{mA}, V_{CE} = 2\text{V}, R_{BE} = \infty$	1 000	4 000	15 000	%	
	Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_F = 20\text{mA}, I_C = 100\text{mA}, R_{BE} = \infty$	-	-	1.2	V	
	Isolation resistance	$R_{ISO}$	DC500V, 40 to 60% RH	$5 \times 10^{10}$	$10^{11}$	-	$\Omega$	
	Floating capacitance	$C_f$	$V = 0, f = 1\text{MHz}$	-	0.6	1.0	pF	
	Response time	Cut-off frequency	$f_c$	$V_{CE} = 2\text{V}, I_C = 20\text{mA}, R_L = 100\Omega, R_{BE} = \infty, -3\text{dB}$	1	7	-	kHz
					Rise time	Fall time	$t_r$	$t_f$
-	20	100	$\mu\text{s}$					

Fig. 1 Forward Current vs. Ambient Temperature

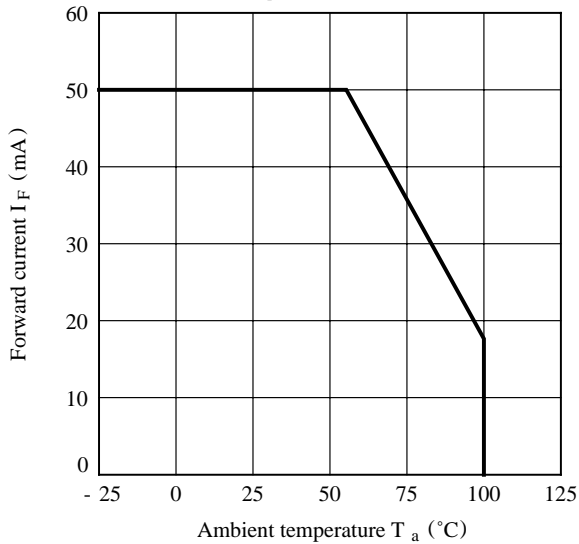


Fig. 2 Collector Power Dissipation vs. Ambient Temperature

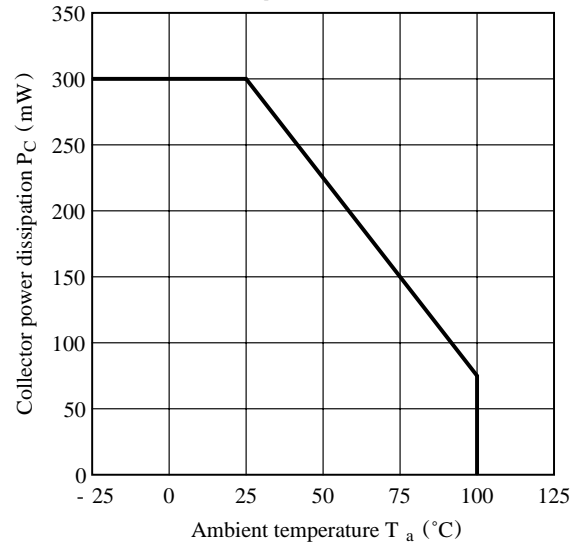


Fig. 3 Peak Forward Current vs. Duty Ratio

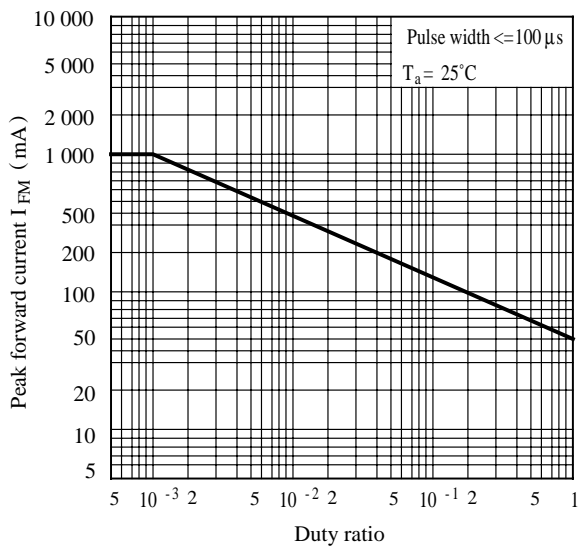
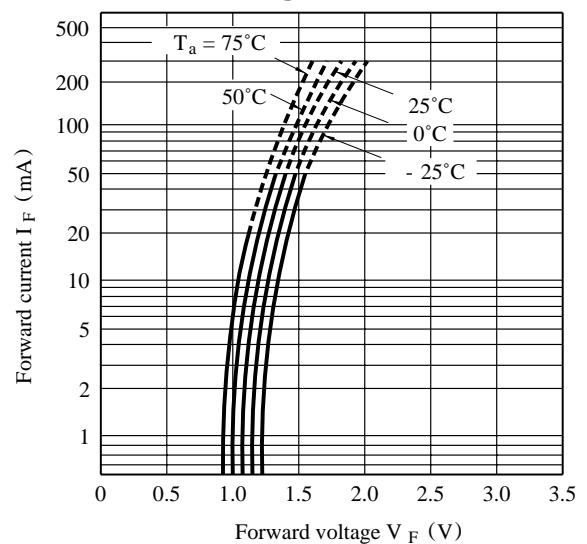
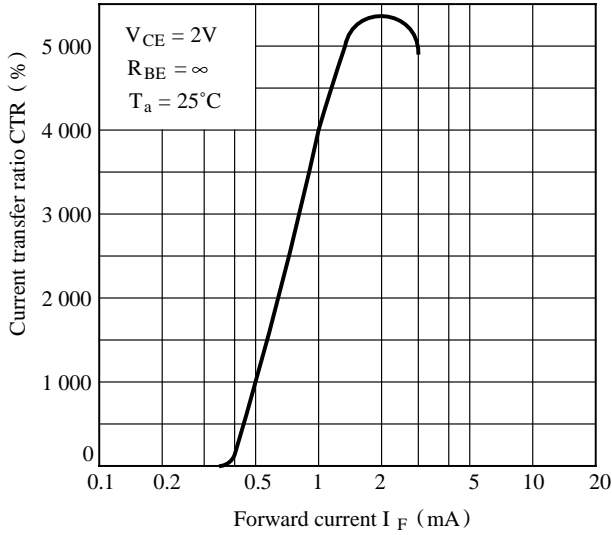


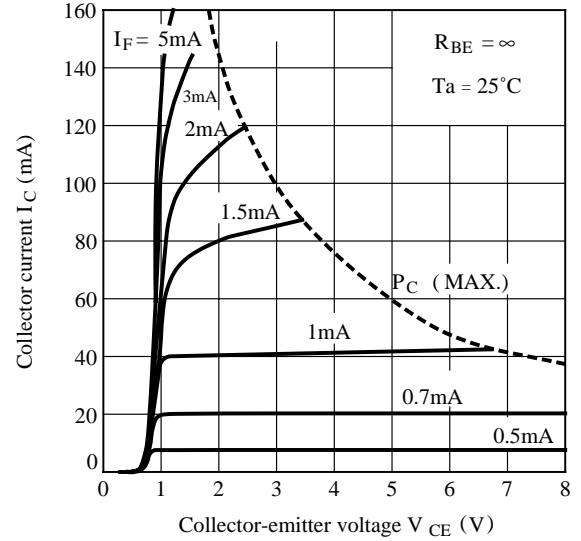
Fig. 4 Forward Current vs. Forward Voltage



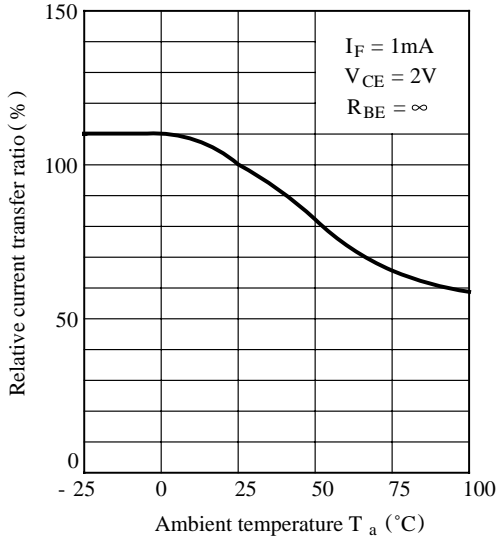
**Fig. 5 Current Transfer Ratio vs. Forward Current**



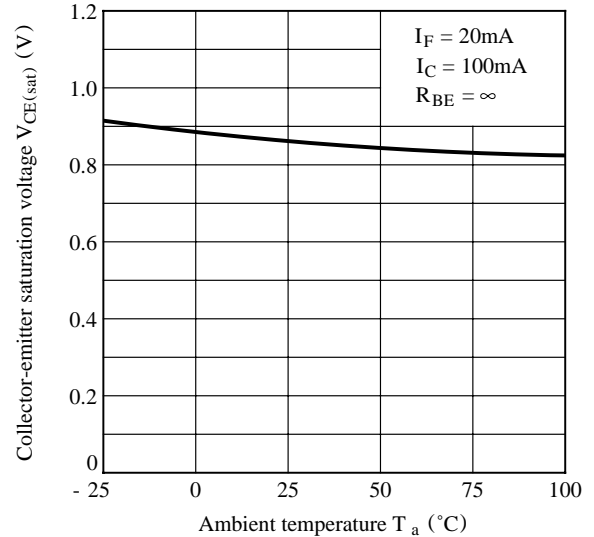
**Fig. 6 Collector Current vs. Collector-emitter Voltage**



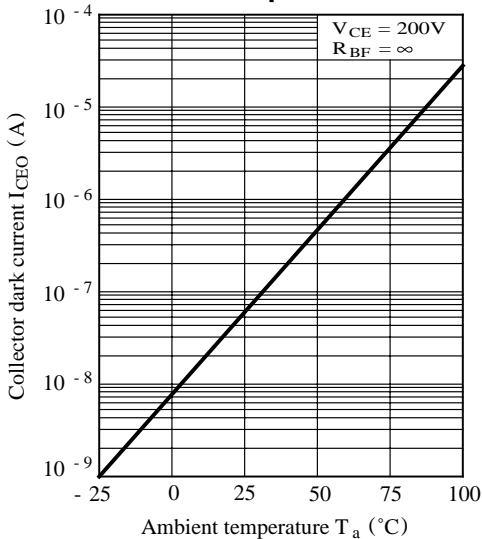
**Fig. 7 Relative Current Transfer Ratio vs. Ambient Temperature**



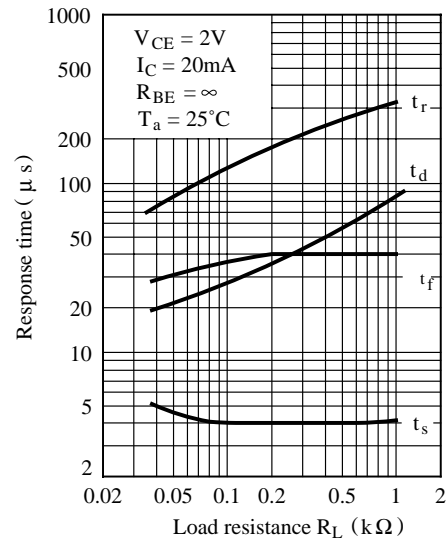
**Fig. 8 Collector-emitter Saturation Voltage vs. Ambient Temperature**



**Fig. 9 Collector Dark Current vs. Ambient Temperature**



**Fig.10 Response Time vs. Load Resistance**



Test Circuit for Response Time

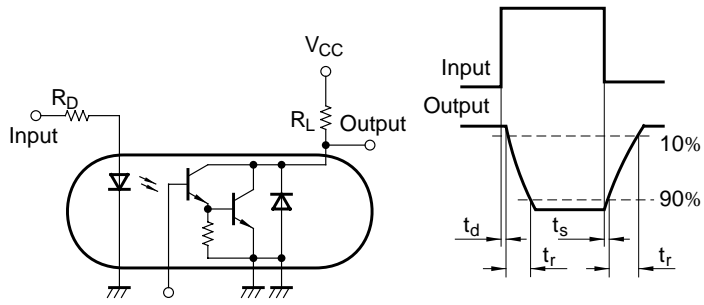
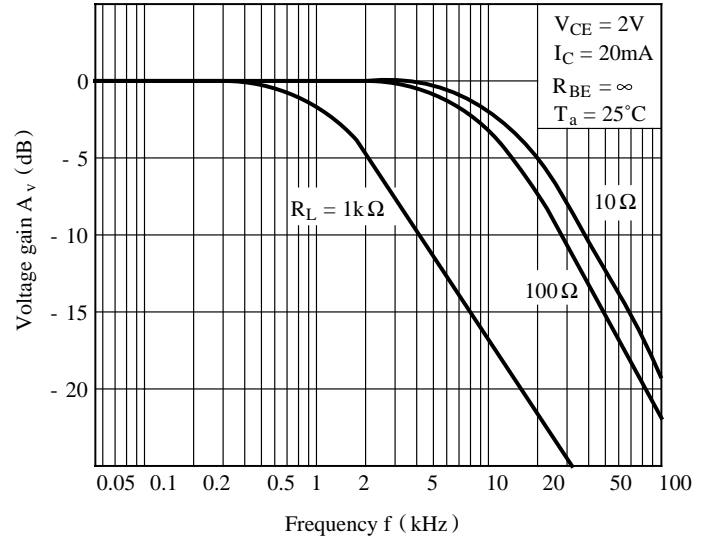
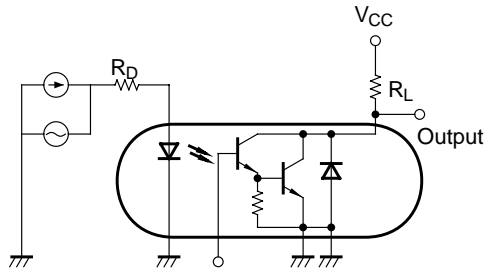


Fig.10 Frequency Response



Test Circuit for Frequency Response



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