

■ Electro-optical Characteristics

(T_a=25°C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V _F	I _F =20mA	–	1.2	1.4	V
	Peak forward voltage	V _{FM}	I _{FM} =0.5V	–	–	3.0	V
	Reverse current	I _R	V _R =4V	–	–	10	μA
	Terminal capacitance	C _t	V=0, f=1kHz	–	30	250	pF
Output	Collector dark current	I _{CEO}	V _{CE} =20V, I _F =0	–	–	100	nA
	Collector current	I _C	I _F =5mA, V _{CE} =5V	2.5	–	30.0	mA
Transfer characteristics	Collector-emitter saturation voltage	V _{CE(sat)}	I _F =20mA, I _C =1mA	–	0.1	0.2	V
	Isolation resistance	R _{ISO}	DC500V, 40 to 60%RH	5×10 ¹⁰	10 ¹¹	–	Ω
	Floating capacitance	C _f	V=0, f=1MHz	–	0.6	1.0	pF
	Cut-off frequency	f _c	V _{CE} =5V, I _C =2mA, R _L =100Ω, –3dB	–	80	–	kHz
	Response time	Rise time	t _r	V _{CE} =2V, I _C =2mA, R _L =100Ω	–	4	18
Fall time		t _f	–		3	18	μs

■ Rank Table

(I_F=5mA, V_{CE}=5V, T_a=25°C)

Model No.	Rank mark	I _C (mA)
PC8*7AB	A or B	4.0 to 13.0
PC8*7BC	B or C	6.5 to 20.0
PC8*7CD	C or D	10.0 to 30.0
PC8*7AC	A, B or C	4.0 to 20.0
PC8*7BD	B, C or D	6.5 to 30.0
PC8*7AD	A, B, C or D	4.0 to 30.0
PC8*7	A, B, C, D or no mark	2.5 to 30.0

*:2 or 4

Fig.1 Forward Current vs. Ambient Temperature

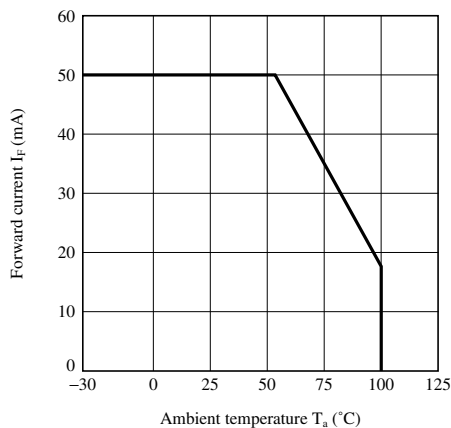


Fig.2 Collector Power Dissipation vs. Ambient Temperature

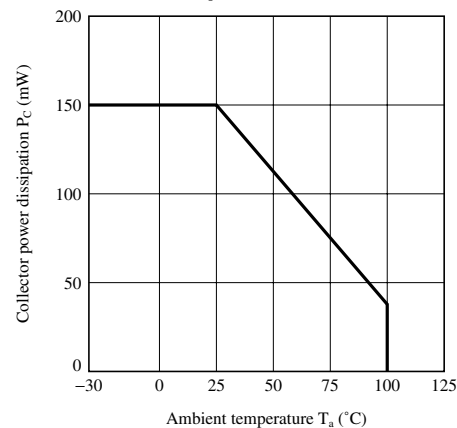


Fig.3 Peak Forward Current vs. Duty Ratio

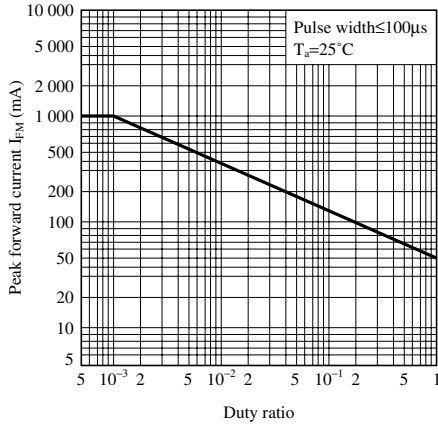


Fig.4 Current Transfer Ratio vs. Forward Current

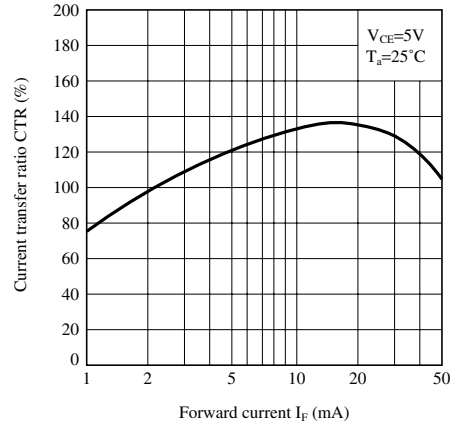


Fig.5 Forward Current vs. Forward Voltage

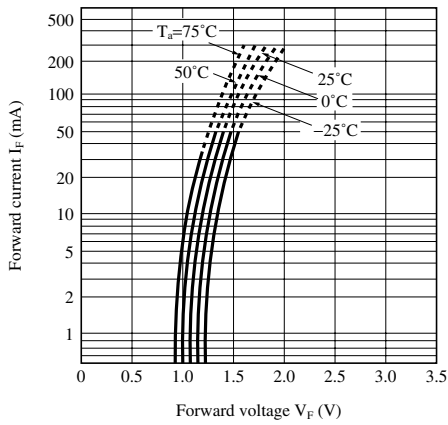


Fig.6 Collector Current vs. Collector-emitter Voltage

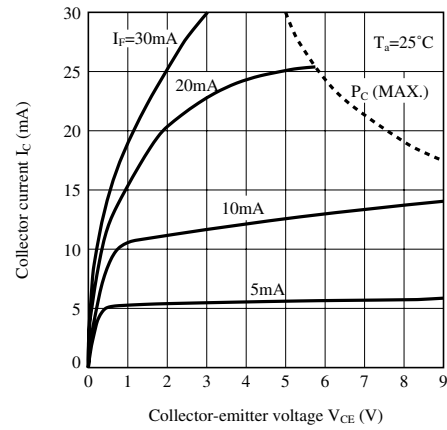


Fig.7 Relative Current Transfer Ratio vs. Ambient Temperature

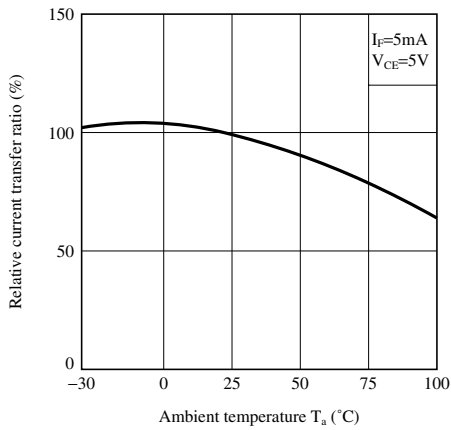


Fig.8 Collector-emitter Saturation Voltage vs. Ambient Temperature

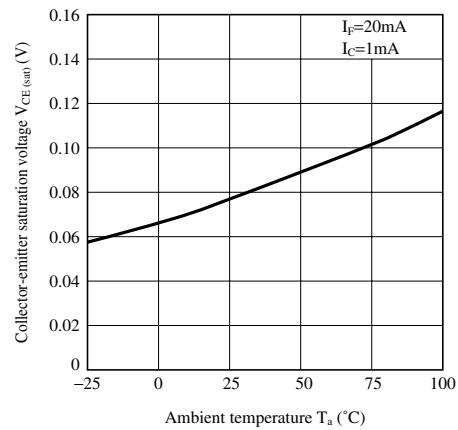


Fig.9 Collector Dark Current vs. Ambient Temperature

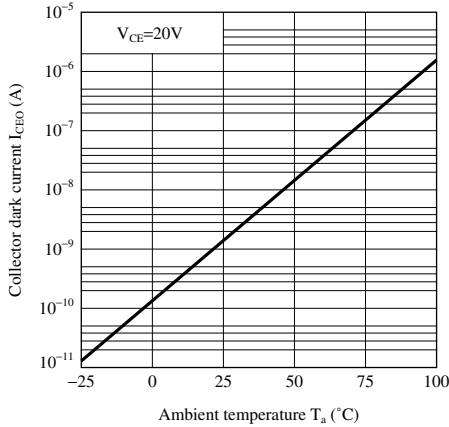


Fig.10 Collector-emitter Saturation Voltage vs. Forward Current

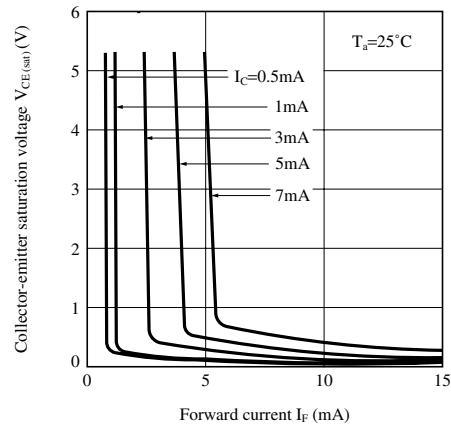
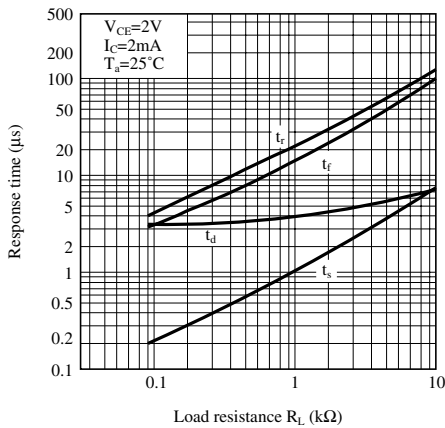


Fig.11 Response Time vs. Load Resistance



Test Circuit for Response Time

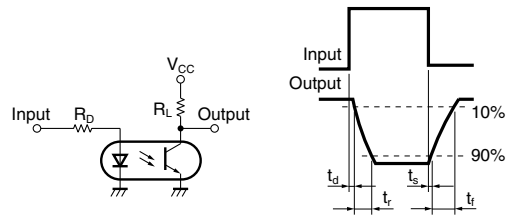
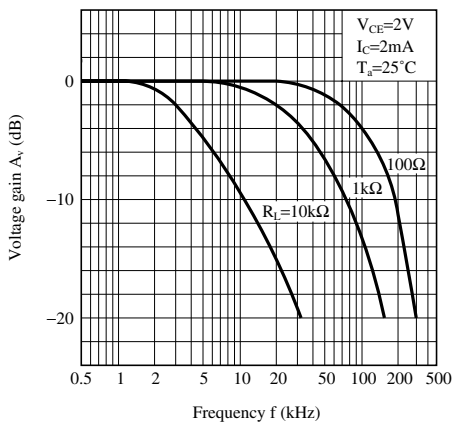
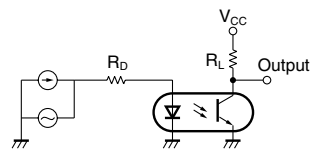


Fig.12 Frequency Response



Test Circuit for Frequency Response



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