

Transistor

●Electrical characteristics (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	BV _{CB0}	-30	-	-	V	I _C =-100μA
Collector-emitter breakdown voltage	BV _{CEO}	-30	-	-	V	I _C =-1mA
Emitter-base breakdown voltage	BV _{EB0}	-6	-	-	V	I _E =-100μA
Collector cut-off current	I _{CB0}	-	-	-1.0	μA	V _{CB} =-20V
Emitter cut-off current	I _{EB0}	-	-	-1.0	μA	V _{EB} =-4V
Collector-emitter saturation voltage	V _{CE(sat)}	-	-250	-500	mV	I _C =-1.0A, I _B =-100mA
DC current gain	h _{FE}	120	-	390	-	V _{CE} =-2V, I _C =-100mA
Transition frequency	f _r	-	350	-	MHz	V _{CE} =-10V, I _E =100mA, f=10MHz
Collector output capacitance	C _{ob}	-	25	-	pF	V _{CB} =-10V, I _E =0A, f=1MHz
Turn-on time	T _{on}	-	25	-	ns	I _C =-2.0A I _{B1} =-200mA
Storage time	T _{stg}	-	100	-	ns	I _{B2} =200mA
Fall time	T _f	-	20	-	ns	V _{CC} ≒-25V

●h_{FE} RANK

Q	R
120-270	180-390

●Electrical characteristic curves

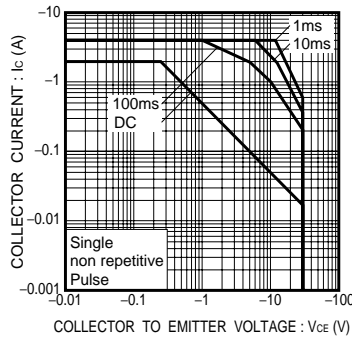


Fig.1 Safe Operating Area

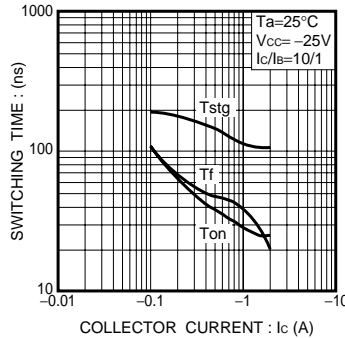


Fig.2 Switching Time

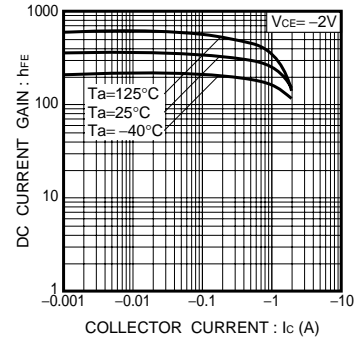


Fig.3 DC Current Gain vs. Collector Current (I)

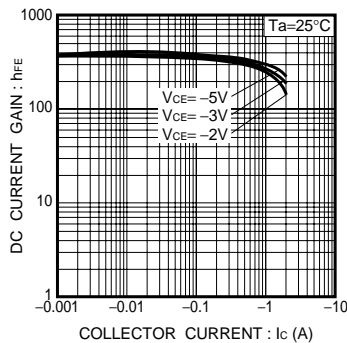


Fig.4 DC Current Gain vs. Collector Current (II)

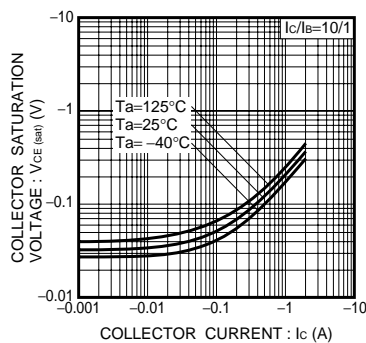


Fig.5 Collector-Emitter Saturation Voltage vs. Collector Current (I)

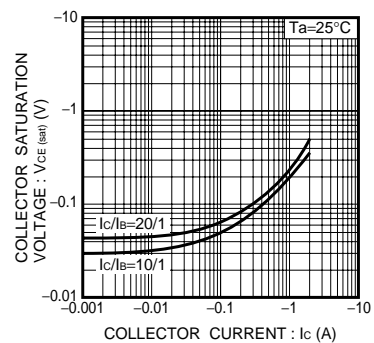


Fig.6 Collector-Emitter Saturation Voltage vs. Collector Current (II)

Transistor

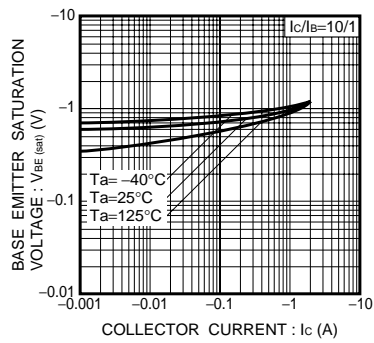


Fig.7 Base-Emitter Saturation Voltage vs. Collector Current

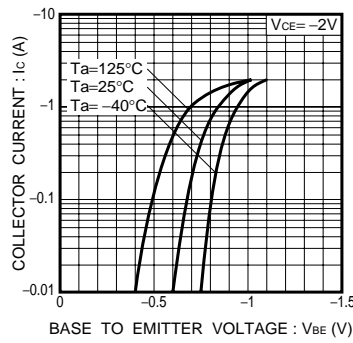


Fig.8 Grounded Emitter Propagation Characteristics

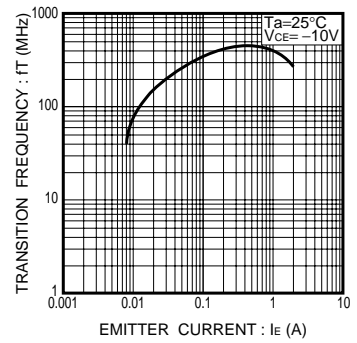


Fig.9 Transition Frequency

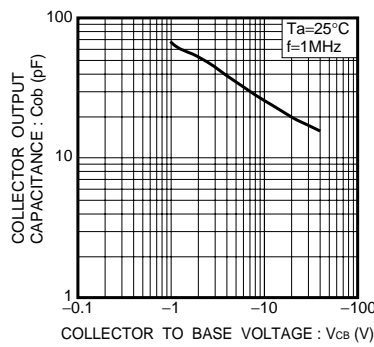
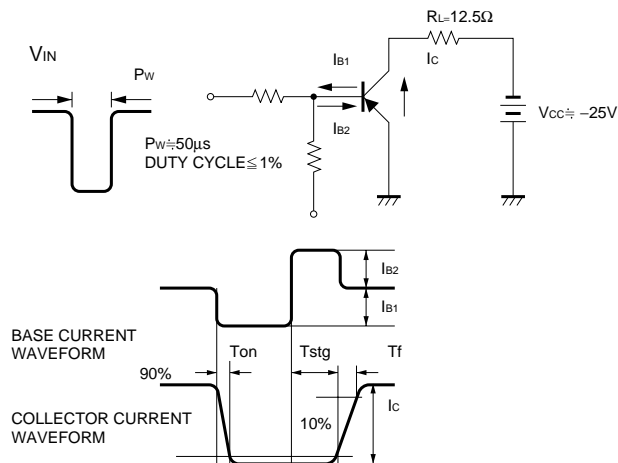


Fig.10 Collector Output Capacitance

●Switching characteristics measurement circuits



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