

Absolute maximum ratings

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	-40	V
Collector-Emitter voltage	V_{CEO}	-32	V
Emitter-Base voltage	V_{EBO}	-5	V
Collector current	I_C	-1	A
Collector dissipation	P_C	0.5	W
	P_C^*	2	
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 ~ 150	°C

* : When mounted on 40×40×0.8mm ceramic substate

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	$I_C = -50\mu A, I_E = 0$	-40	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-32	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_E = -50\mu A, I_C = 0$	-5	-	-	V
Collector cut-off current	I_{CBO}	$V_{CB} = -20V, I_E = 0$	-	-	-0.1	μA
Collector cut-off current	I_{CES}	$V_{CE} = -30V, I_C = 0$	-	-	-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$	-	-	-0.1	μA
DC current gain	h_{FE}^*	$V_{CE} = -3V, I_C = -0.1A$	100	-	320	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$	-	-0.2	-0.8	V
Transition frequency	f_T	$V_{CE} = -5V, I_C = -50mA,$ $f = 30MHz$	-	150	-	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	20	30	pF

* : h_{FE} rank / O : 100 ~ 200, Y : 160 ~ 320

Electrical Characteristic Curves

Fig. 1 $P_C - T_a$

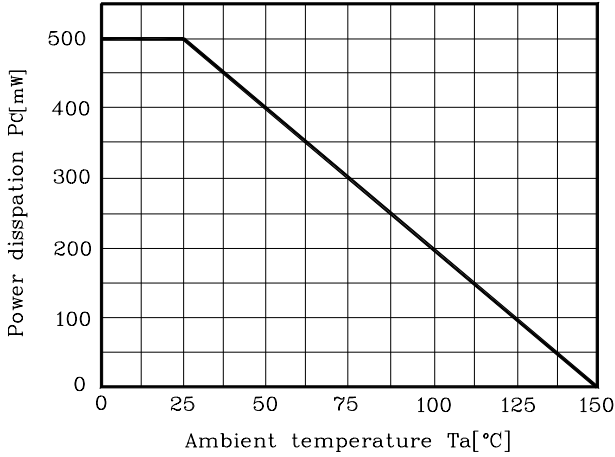


Fig. 2 $I_C - V_{BE}$

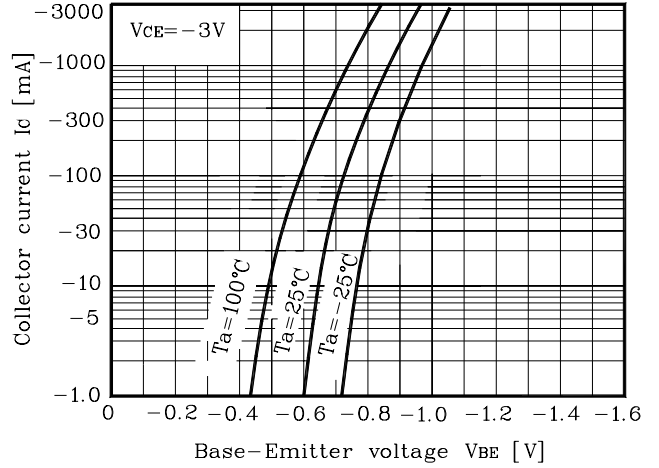


Fig. 3 $I_C - V_{CE}$

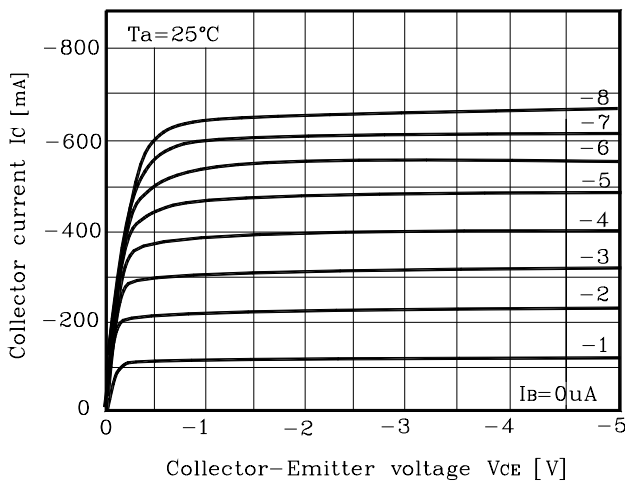


Fig. 4 $V_{CE(sat)} - I_C$

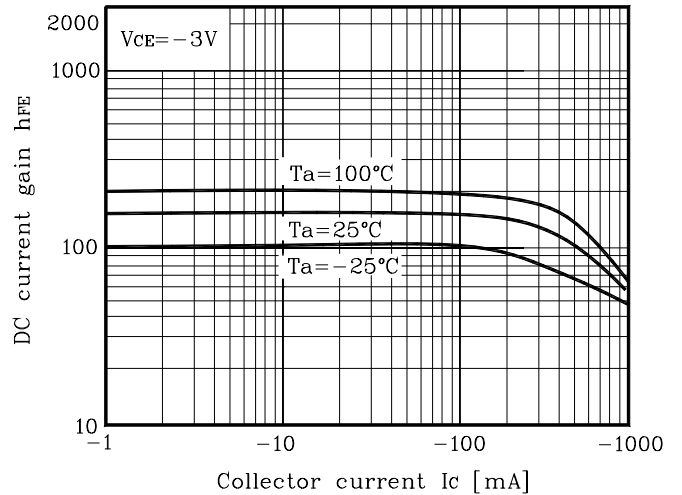


Fig. 5 $h_{FE} - I_C$

