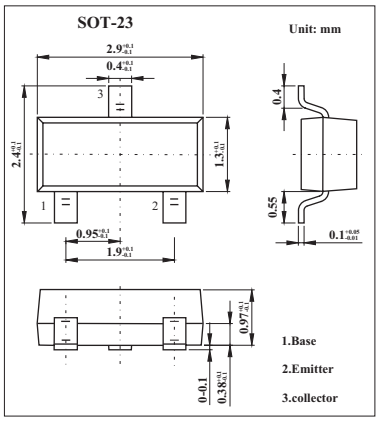
TY Semicondutor®

Product specification

2SC2712



■ Features

- High voltage and high current: V_{CEO} = 50 V, I_C = 150 mA (max)
- Excellent hFE linearity : h_{FE} (I_C = 0.1 mA)/ h_{FE} (I_C = 2 mA)= 0.95 (typ.)
- High h_{FE}: h_{FE} = 70～700
- Low noise: NF = 1dB (typ.), 10dB (max)

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	60	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	150	mA
Base current	I_B	30	mA
Collector power dissipation	P_C	150	mW
Junction temperature	Tj	125	℃
Storage temperature range	T_{stg}	-55 to +125	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 60 V, I_E = 0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB} = 5 V, I_C = 0			0.1	μA
DC current gain	h_{FE}	V_{CE} = 6 V, I_C = 2 mA	70		700	
Collector-emitter saturation voltage	$V_{CE\ (sat)}$	I_C = 100 mA, I_B = 10 mA		0.1	0.25	V
Collector output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1 MHz		2	3.5	pF
Noise figure	NF	V_{CE} = 6 V, I_C = 0.1 mA , f = 1 KHz, R_G=10KΩ		1	10	dB
Transition frequency	f_T	V_{CE} = 10V, I_C =1 mA	80			MHz

■ h_{FE} Classification

Marking	LO	LY	LG	LL
Rank	O	Y	GR	BL
hFE	70～140	120～240	200～400	350～700

■ Typlcal Characteristics

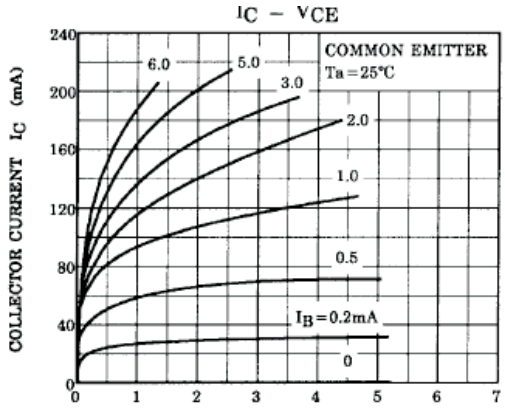


Fig.1 Collector Emitter Voltage

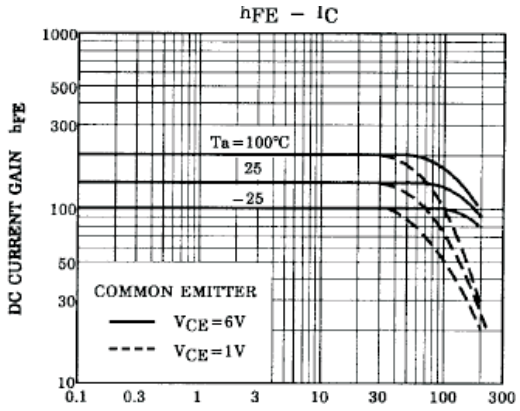


Fig.2 Collector Current

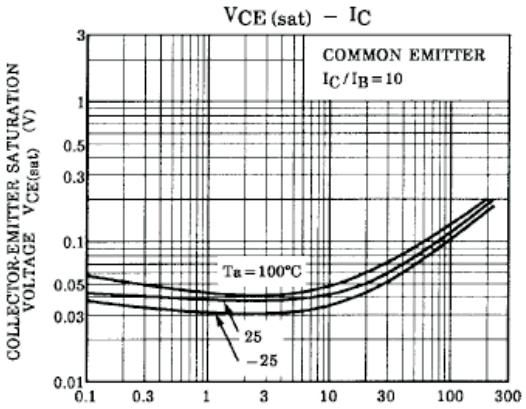


Fig.3 Collector Current

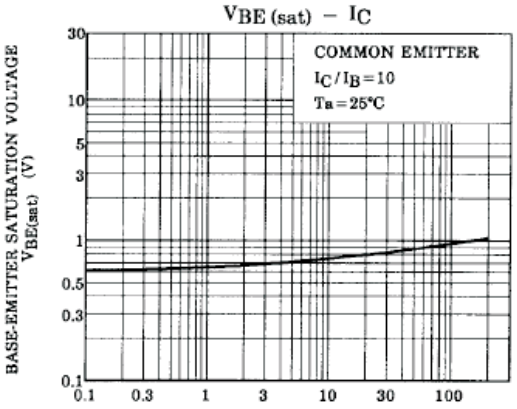


Fig.4 Collector Current

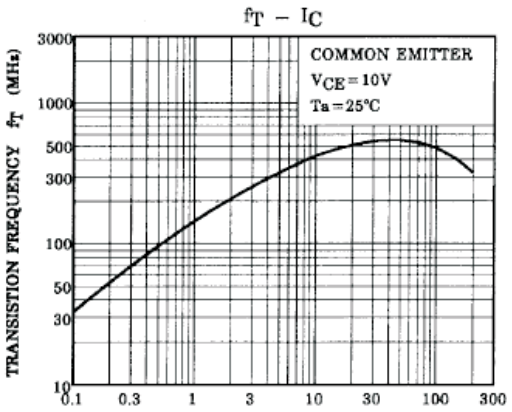


Fig.5 Collector Current

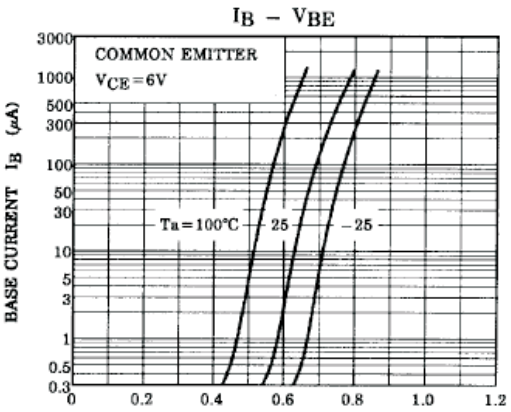


Fig.6 Base Emitter Voltage

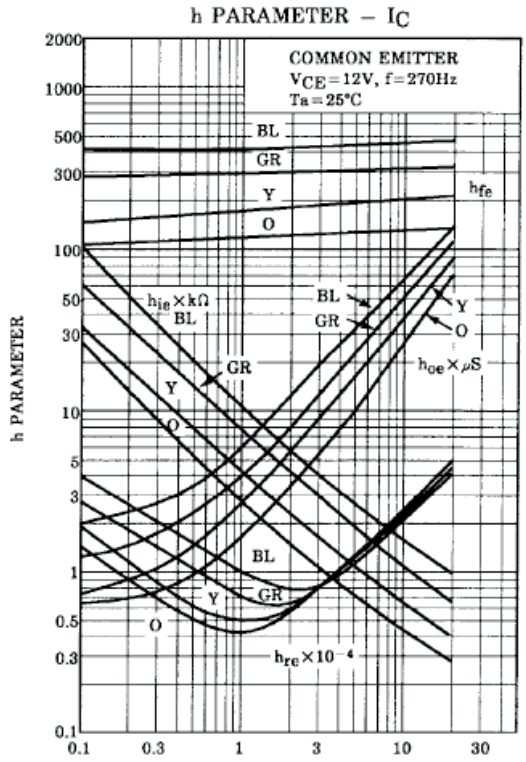


Fig.7 Collector Current

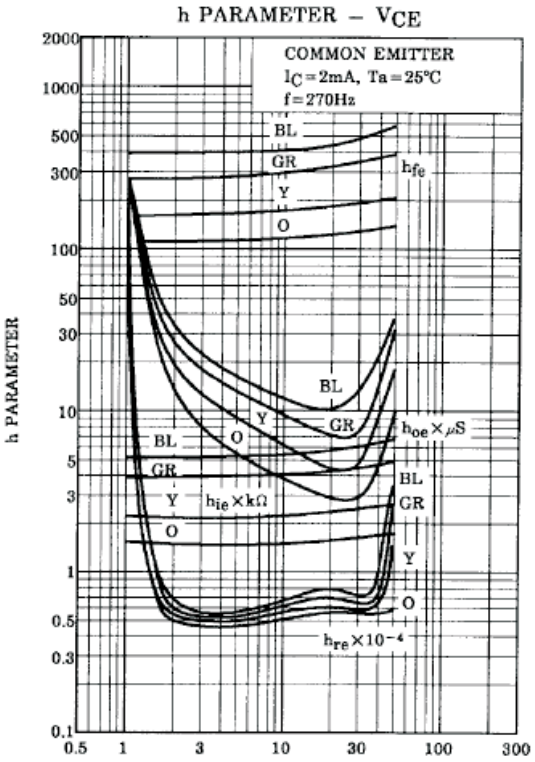


Fig.8 Collector Emitter Voltage

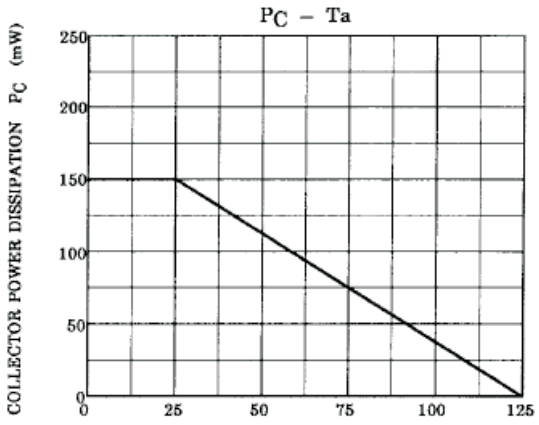


Fig.9 Ambient Temperature