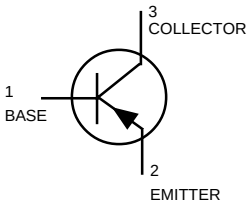
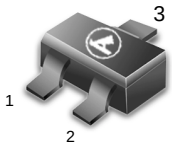
General Purpose Transistors

PNP Silicon

BC857BRLT1

is LRC prefered Device





CASE 318–08, STYLE 6
SOT– 23 (TO–236AB)

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Collector–Emitter Voltage	V_{CEO}	–50	V
Collector–Base Voltage	V_{CBO}	–60	V
Emitter–Base Voltage	V_{EBO}	–6.0	V
Collector Current — Continuous	I_C	–150	mAdc
Collector power dissipation	P_C	0.2	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 —+150	°C

DEVICE MARKING

BC857BRLT1 =G3F

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

Characteristic	Symbol	Min	Typ	Max	Unit
Collector–Emitter Breakdown Voltage (I_C = –1 mA)	$V_{(BR)CEO}$	– 50	—	—	V
Emitter–Base Breakdown Voltage (I_E = – 50 μA)	$V_{(BR)EBO}$	– 6	—	—	V
Collector–Base Breakdown Voltage (I_C = – 50 μA)	$V_{(BR)CBO}$	– 60	—	—	V
Collector Cutoff Current (V_{CB} = – 60 V)	I_{CBO}	—	—	– 0.1	μA
Emitter cutoff current (V_{EB} = – 6 V)	I_{EBO}	—	—	– 0.1	μA
Collector-emitter saturation voltage (I_C/ I_B = – 50 mA / – 5m A)	$V_{CE(sat)}$	—	—	-0.5	V
DC current transfer ratio (V_{CE} = – 6 V, I_C= –1mA)	h_{FE}	120	—	560	—
Transition frequency (V_{CE} = – 12 V, I_E= 2mA, f=30MHz)	f_T	—	140	—	MHz
Output capacitance (V_{CB} = – 12 V, I_E= 0A, f =1MHz)	C_{ob}	—	4.0	5.0	pF

h_{FE} values are classified as follows:

*	Q	R	S
hFE	120~270	180~390	270~560

BC857BRLT1

Fig.1 Grounded emitter propagation characteristics

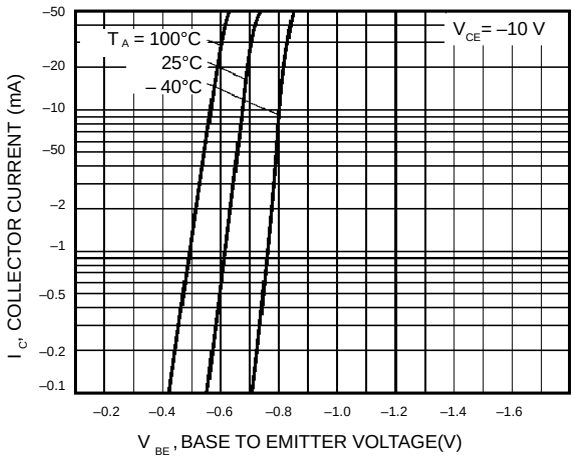


Fig.2 Grounded emitter output characteristics(Ⅰ)

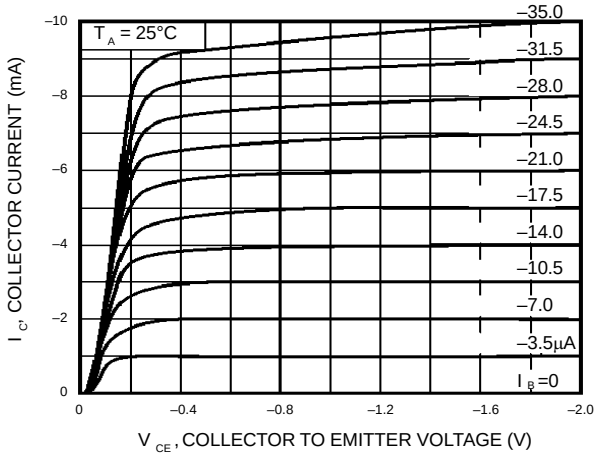


Fig.3 Grounded emitter output characteristics(Ⅱ)

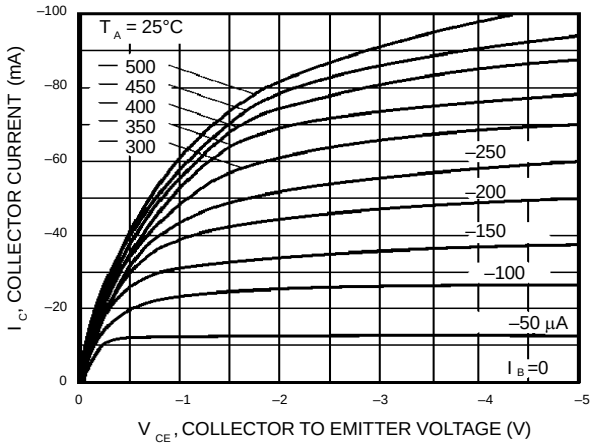


Fig.4 DC current gain vs. collector current (Ⅰ)

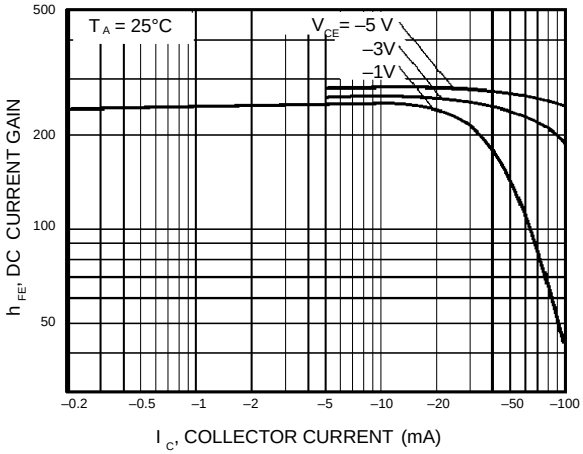


Fig.5 DC current gain vs. collector current (Ⅱ)

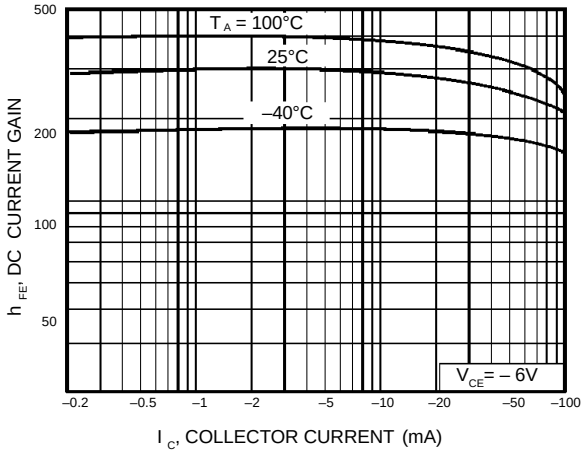
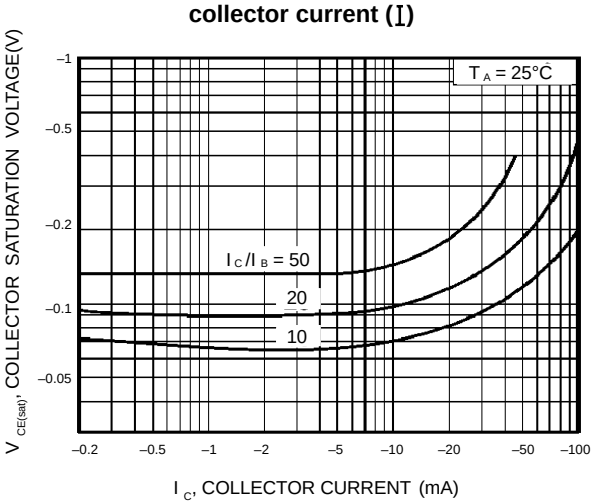


Fig.6 Collector-emitter saturation voltage vs. collector current (Ⅰ)



BC857BRLT1

Fig.7 Collector-emitter saturation voltage vs. collector current (Ⅱ)

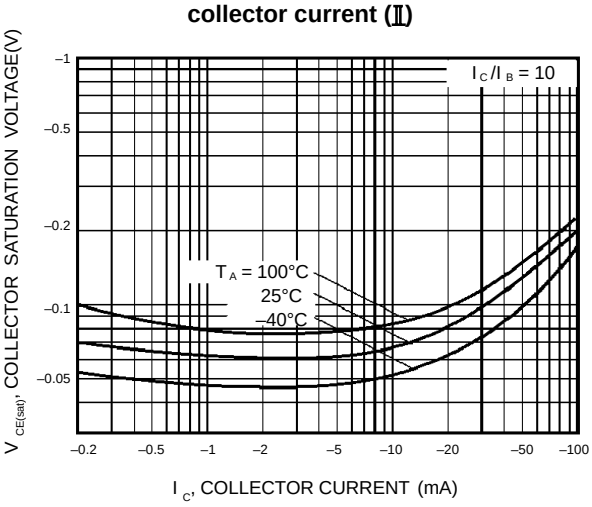


Fig.8 Gain bandwidth product vs. emitter current

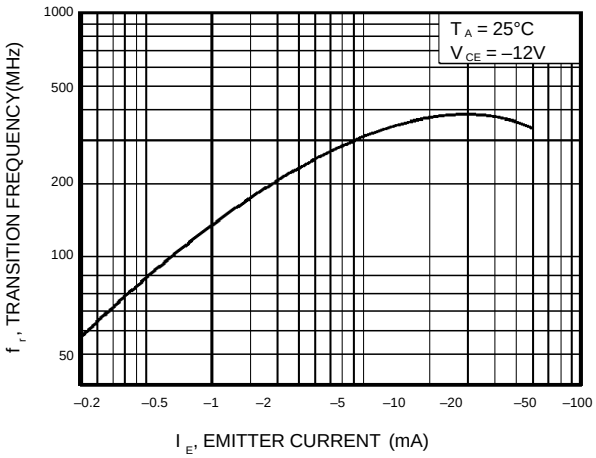


Fig.9 Collector output capacitance vs.collector-base voltage
Emitter inputcapacitance vs. emitter-base voltage