

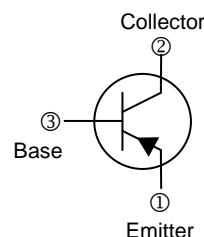
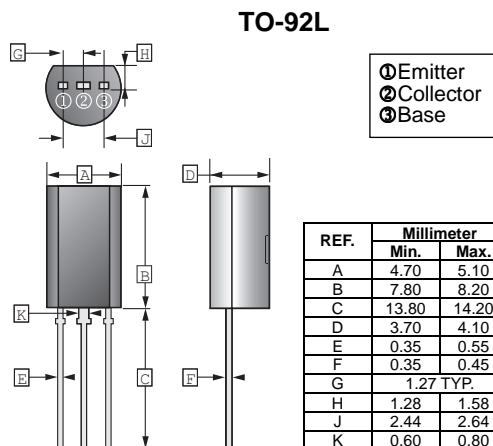
RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

### FEATURE

- Automatic insertion by radial taping possible.
- Complementary pair with 2SC1384L.

### CLASSIFICATION OF $h_{FE}$

Product-Rank	2SA684-Q	2SA684-R	2SA684-S
Range	85~170	120~240	170~340



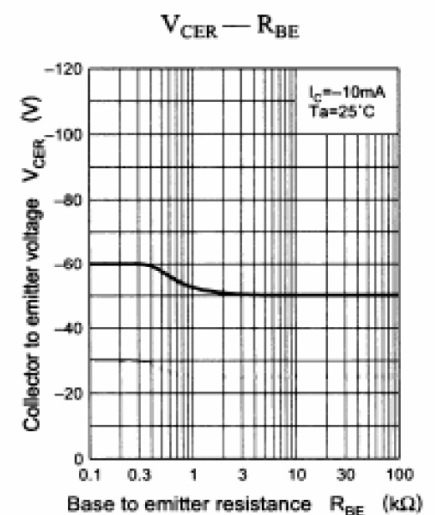
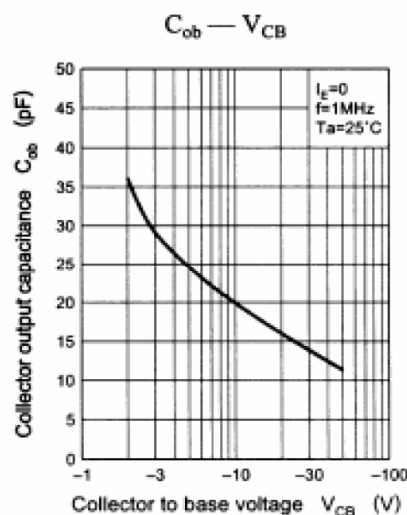
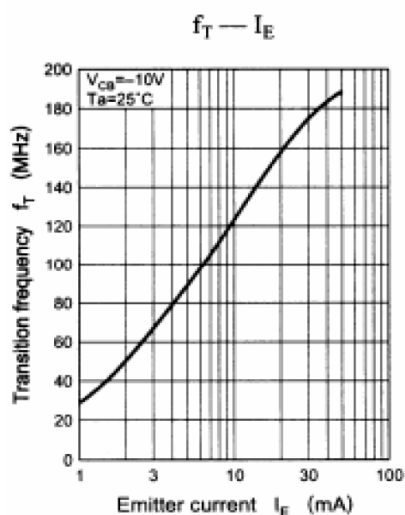
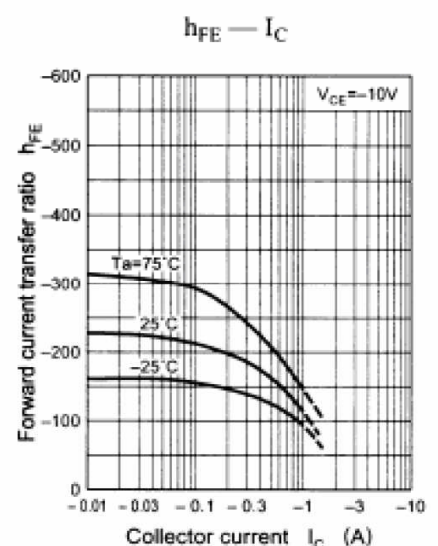
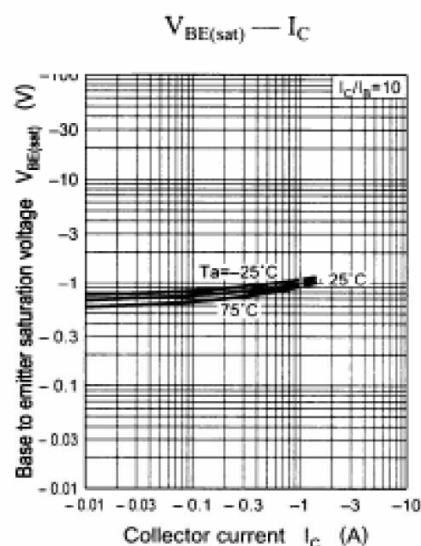
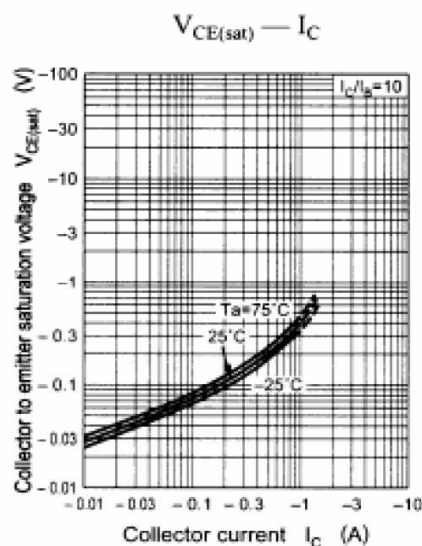
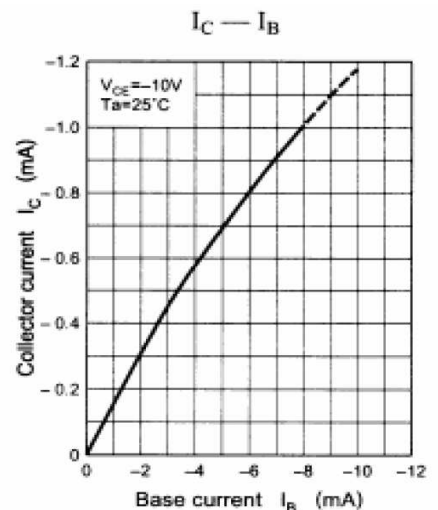
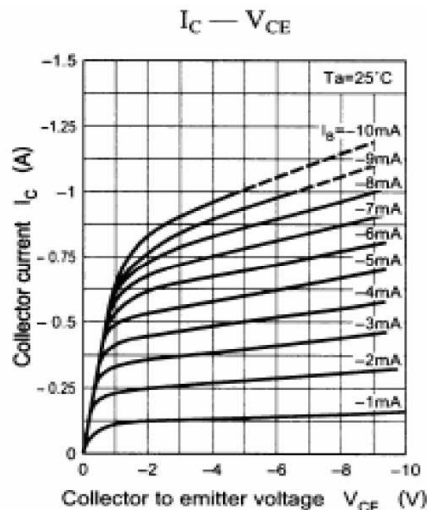
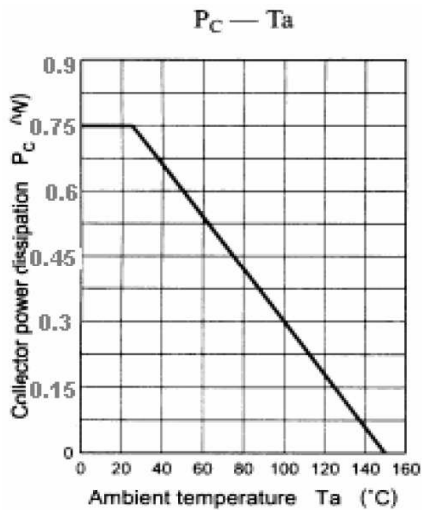
### ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	$V_{CB0}$	-60	V
Collector to Emitter Voltage	$V_{CEO}$	-50	V
Emitter to Base Voltage	$V_{EBO}$	-5	V
Collector Current - Continuous	$I_C$	-1	A
Collector Power Dissipation	$P_C$	1	W
Junction, Storage Temperature	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-60	-	-	V	$I_C = -10\mu\text{A}, I_E = 0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-50	-	-	V	$I_C = -2\text{mA}, I_B = 0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	$I_E = -10\mu\text{A}, I_C = 0$
Collector Cut-off Current	$I_{CBO}$	-	-	-0.1	$\mu\text{A}$	$V_{CB} = -20\text{V}, I_E = 0$
DC Current Gain	$h_{FE(1)}$	85	-	340		$V_{CE} = -10\text{V}, I_C = -500\text{mA}$
	$h_{FE(2)}$	50	-	-		$V_{CE} = -5\text{V}, I_C = -1\text{A}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-0.2	-0.4	V	$I_C = -500\text{mA}, I_B = -50\text{mA}$
Base-Emitter Voltage	$V_{BE(sat)}$	-	-0.85	-1.2	V	$I_C = -500\text{mA}, I_B = -50\text{mA}$
Transition Frequency	$f_T$	-	200	-	MHz	$V_{CE} = -10\text{V}, I_E = 50\text{mA}, f = 200\text{MHz}$
Collector Output Capacitance	$C_{Ob}$	-	20	30	pF	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$

**CHARACTERISTIC CURVES**



**CHARACTERISTIC CURVES**

