

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

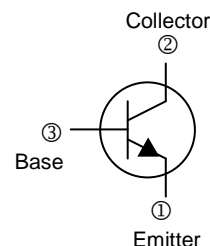
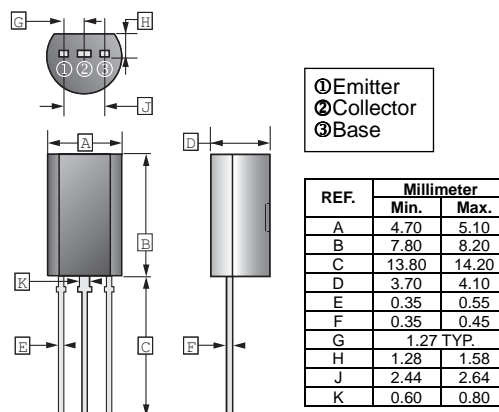
### FEATURE

- Low collector to emitter saturation voltage  $V_{CE(sat)}$ .
- Complementary pair with 2SA683 and 2SA684.

### CLASSIFICATION OF $h_{FE(1)}$

Product-Rank	2SC1383L-Q	2SC1383L-R	2SC1383L-S
Product-Rank	2SC1384L-Q	2SC1384L-R	2SC1384L-S
Range	85~170	120~240	170~340

### TO-92L



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

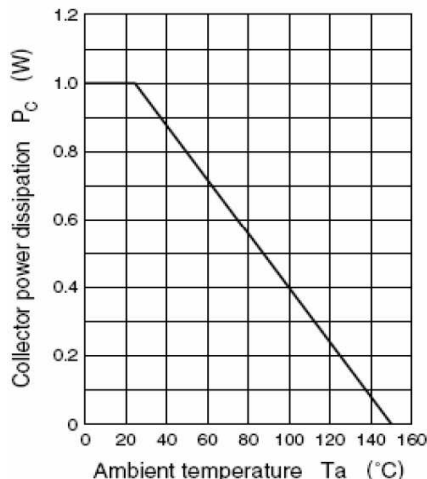
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	30	V
		60	
Collector to Emitter Voltage	$V_{CEO}$	25	V
		50	
Emitter to Base Voltage	$V_{EBO}$	5	V
Continuous Collector Current	$I_C$	1	A
Collector Power Dissipation	$P_C$	1	W
Junction, Storage Temperature	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

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

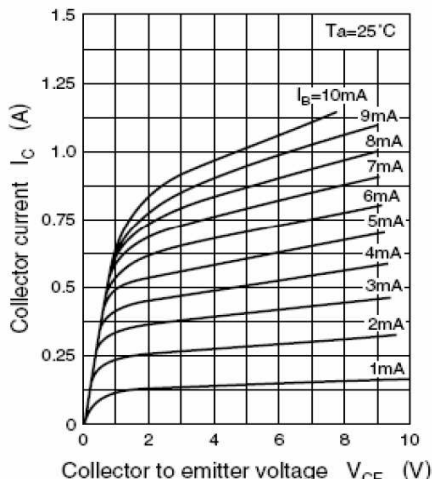
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	30	-	-	V	$I_C=10\mu\text{A}, I_E=0$
Voltage		60	-	-		
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	25	-	-	V	$I_C=2\text{mA}, I_B=0$
		50	-	-		
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	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	$V_{CE(sat)}$	-	-	0.4	V	$I_C=500\text{mA}, I_B=50\text{mA}$
Base - Emitter Saturation Voltage	$V_{BE(sat)}$	-	-	1.2	V	$I_C=500\text{mA}, I_B=50\text{mA}$
Transition Frequency	$f_T$	-	200	-	MHz	$V_{CE}=10\text{V}, I_C=50\text{mA}$

**CHARACTERISTIC CURVES**

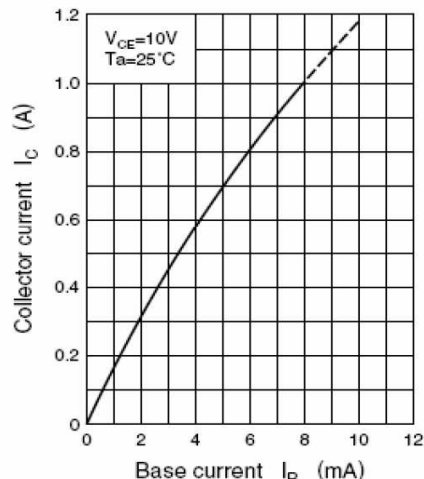
$P_C - T_a$



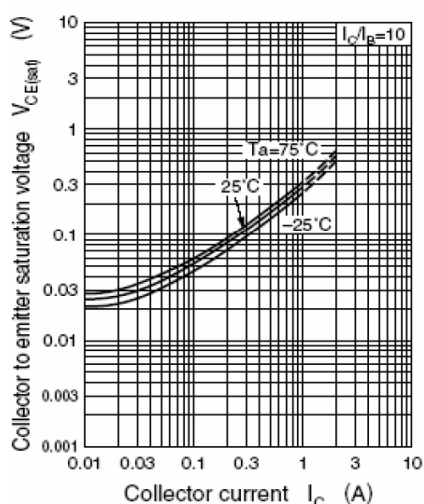
$I_C - V_{CE}$



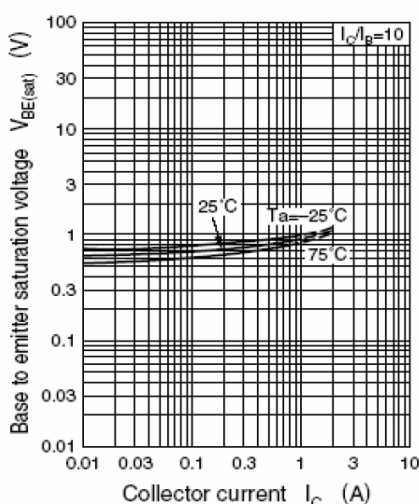
$I_C - I_B$



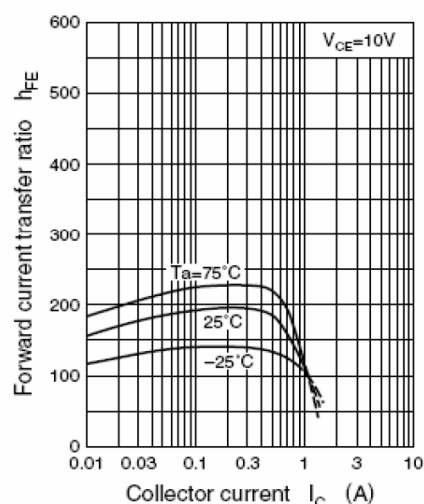
$V_{CE(sat)} - I_C$



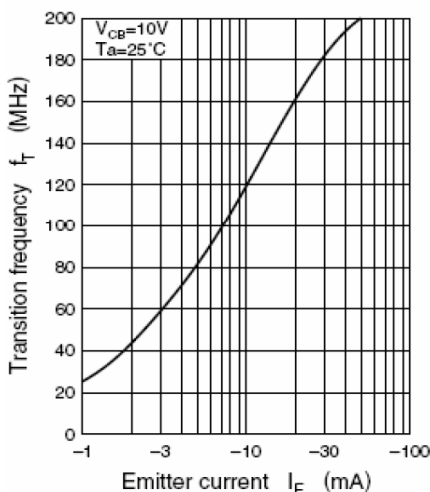
$V_{BE(sat)} - I_C$



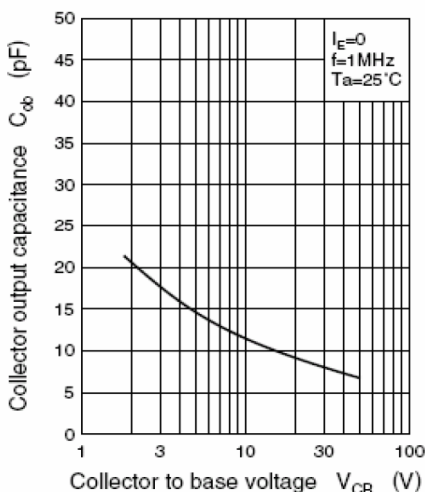
$h_{FE} - I_C$



$f_T - I_E$



$C_{ob} - V_{CB}$



$V_{CER} - R_{BE}$

