

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

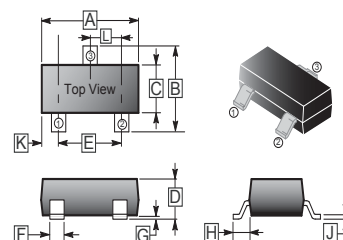
## FEATURES

- High voltage and high current.
- Excellent  $h_{FE}$  linearity.
- High  $h_{FE}$ .
- Low noise.
- Complementary to 2SA1586

## CLASSIFICATION OF $h_{FE}$

Product-Rank	2SC-4116-O	2SC-4116-Y	2SC-4116-GR	2SC-4116-BL
Range	70~140	120~240	200~400	350~700
Marking	LO	LY	LG	LL

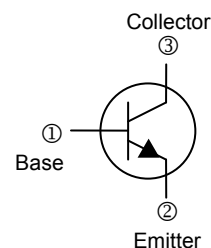
## SOT-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	1.80	2.20	G	0.100	REF.
B	1.80	2.45	H	0.525	REF.
C	1.15	1.35	J	0.08	0.25
D	0.80	1.10	K	-	-
E	1.20	1.40	L	0.650	TYP.
F	0.20	0.40			

## PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-323	3K	7' inch



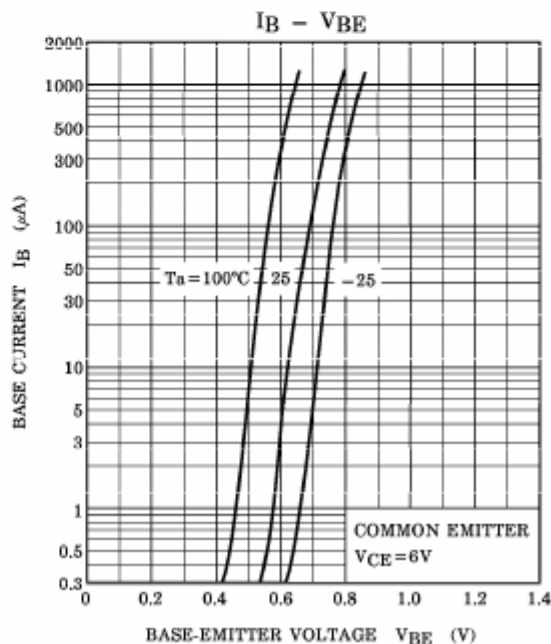
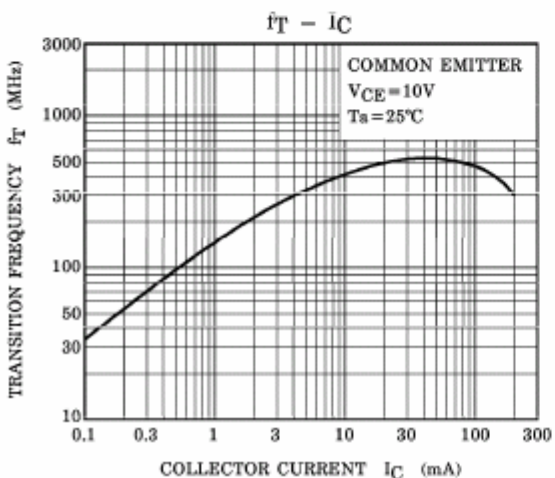
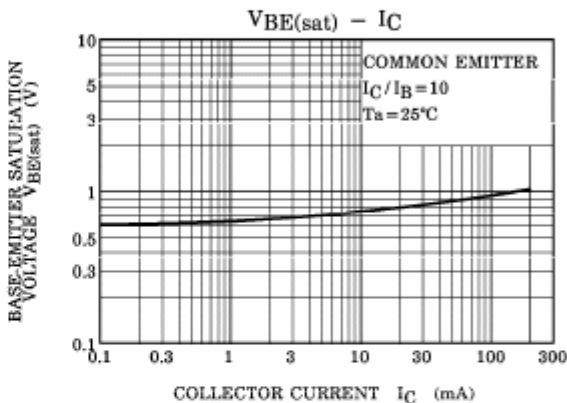
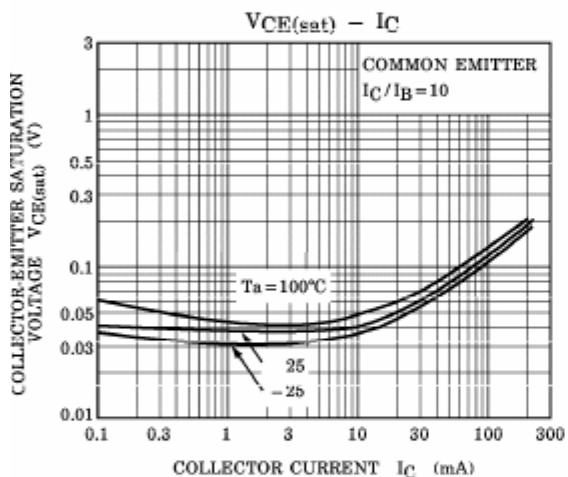
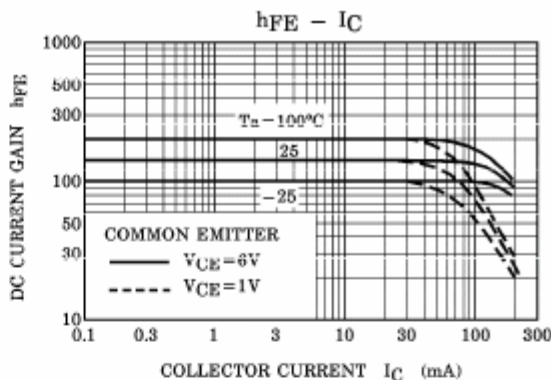
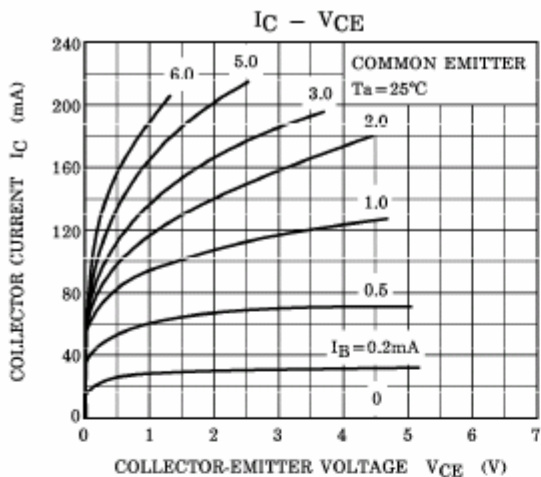
## ABSOLUTE MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

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
Collector Power Dissipation	$P_C$	100	mW
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 Condition
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	60	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	50	-	-	V	$I_C=1\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-	V	$I_E=100\mu\text{A}, I_C=0$
Collector Cut-Off Current	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	$V_{CB}=60\text{V}, I_E=0$
Emitter Cut-off Current	$I_{EBO}$	-	-	0.1	$\mu\text{A}$	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	$h_{FE}$	70	-	700		$V_{CE}=6\text{V}, I_C=2\text{mA}$
Collector-Base Saturation Voltage	$V_{CE(sat)}$	-	-	0.25	V	$I_C=100\text{mA}, I_B=10\text{mA}$
Transition Frequency	$f_T$	80	-	-	GHz	$V_{CE}=10\text{V}, I_C=1\text{mA}$
Collector Output Capacitance	$C_{ob}$	-	-	3.5	pF	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$
Noise Figure	NF	-	-	10	dB	$V_{CE}=6\text{V}, I_C=0.1\text{mA}, f=1\text{KHz}, R_g=10\text{K}\Omega$

**CHARACTERISTIC CURVES**



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