

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

FEATURE

- For high-frequency Amplification Complementary to 2SA1532
- Optimum for RF amplification of FM/AM radios
- High transition frequency f_T

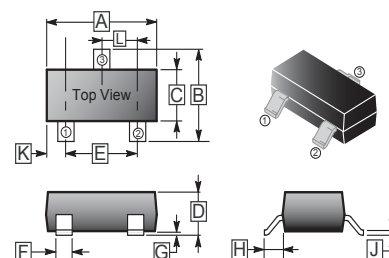
CLASSIFICATION OF h_{FE}

Product-Rank	2SC3930-VB	2SC3930-VC
Range	70~140	110~220

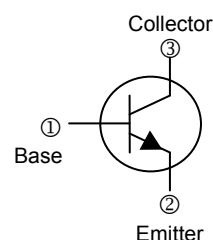
PACKAGE INFORMATION

Package	MPQ	LeaderSize
SOT-323	3K	7' inch

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			



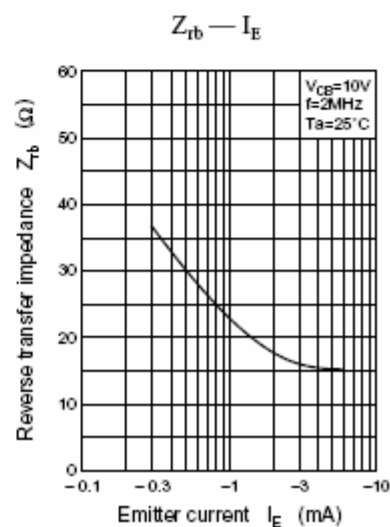
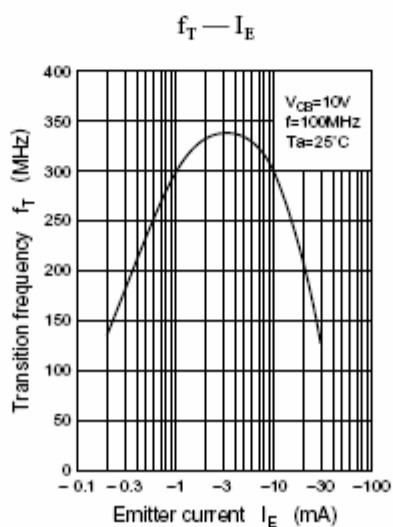
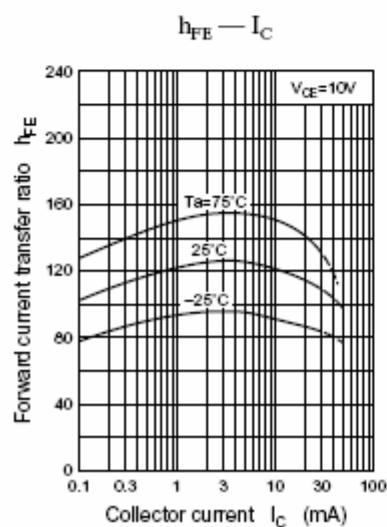
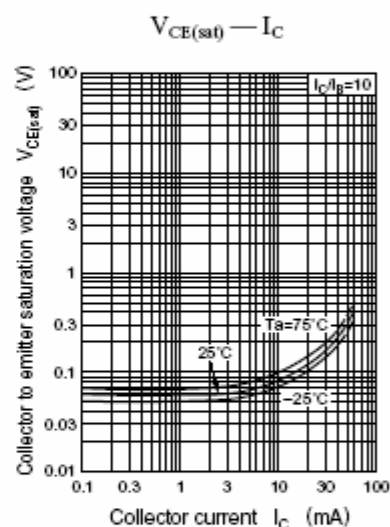
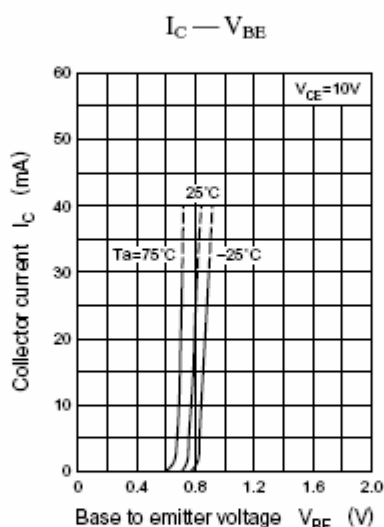
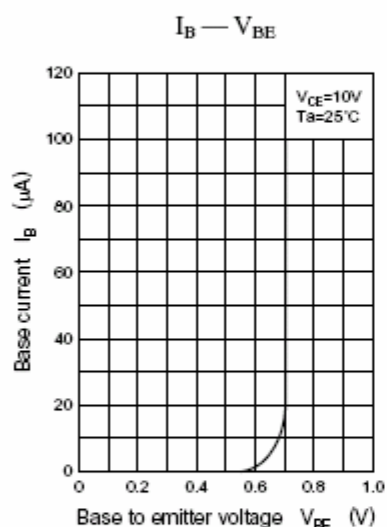
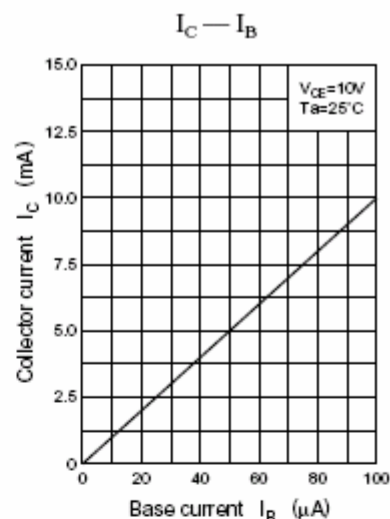
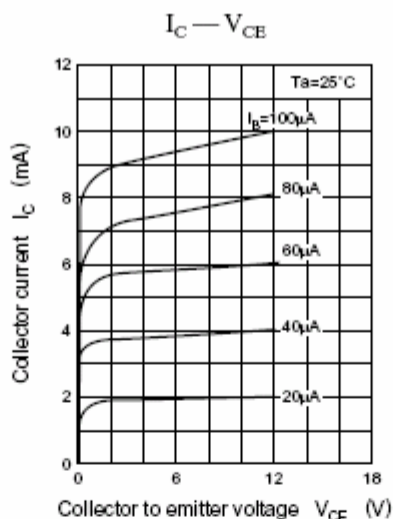
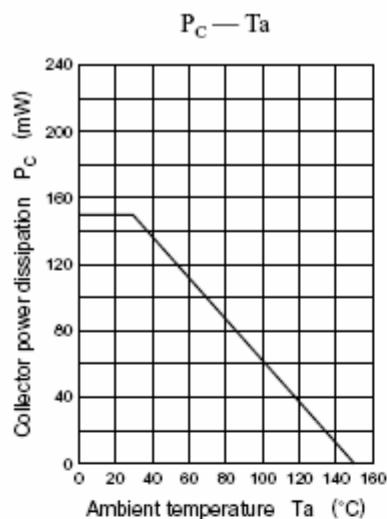
ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	20	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current – Continuous	I_C	30	mA
Collector Power Dissipation	P_C	150	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	Testing Condition
Collector-base breakdown voltage	$V_{(BR)CBO}$	30	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	20	-	-	V	$I_C=100\mu\text{A}, I_B=0$
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	μA	$V_{CB}=10\text{V}, I_E=0$
Emitter Cut-off Current	I_{EBO}	-	-	0.1	μA	$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	h_{FE}	70	-	220		$V_{CE}=10\text{V}, I_C=1\text{mA}$
Transition Frequency	f_T	150	-	-	MHz	$V_{CE}=10\text{V}, I_E=1\text{mA}, f=200\text{MHz}$
Common emitter reverse transfer capacitance	C_{re}	-	-	1.5	pF	$V_{CB}=10\text{V}, I_C=1\text{mA}, f=10.7\text{MHz}$
Noise Figure	NF	-	-	4	dB	$V_{CB}=10\text{V}, I_C=1\text{mA}, f=5\text{MHz}$
Reverse transfer impedance	Z_{rb}	-	-	50	Ω	$V_{CB}=10\text{V}, I_C=1\text{mA}, f=2\text{MHz}$

CHARACTERISTIC CURVES



CHARACTERISTIC CURVES

