

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

FEATURE

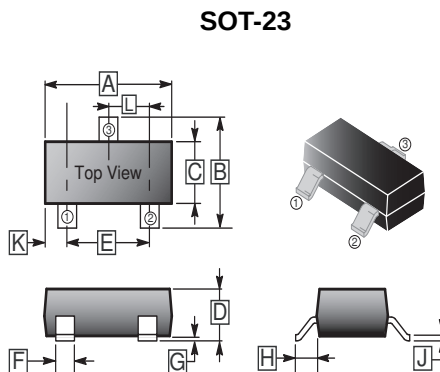
- RF amplifier
- High current transition frequency $f_T=550\text{MHz(Typ.)}$,
[$V_{CE}=6\text{V}$, $I_E=-1\text{mA}$]
- Low output capacitance : $C_{ob}=1.4\text{pF(Typ.)}$ [$V_{CB}=6\text{V}$, $I_E=0$]
- Low base time constant and high gain
- Excellent noise response

MARKING :

5345

CLASSIFICATION OF h_{FE}

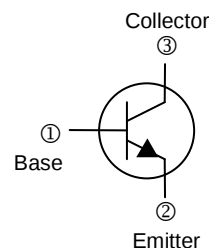
Product-Rank	2SC5345-R	2SC5345-O	2SC5345-Y
Range	40~80	70~140	120~240



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.80	3.04	G	0.09	0.18
B	2.10	2.55	H	0.45	0.60
C	1.20	1.40	J	0.08	0.177
D	0.89	1.15	K	0.6 REF.	
E	1.78	2.04	L	0.89	1.02
F	0.30	0.50			

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-23	3K	7 inch



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}	4	V
Collector Current - Continuous	I_C	20	mA
Collector Power Dissipation	P_C	300	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 Conditions
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	30	-	-	V	$I_C=10\mu\text{A}$, $I_E=0$
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	20	-	-	V	$I_C=5\text{mA}$, $I_B=0$
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	4	-	-	V	$I_E=10\mu\text{A}$, $I_C=0$
Collector Cut-Off Current	I_{CBO}	-	-	0.5	μA	$V_{CB}=30\text{V}$, $I_E=0$
Emitter Cut-Off Current	I_{EBO}	-	-	0.5	μA	$V_{EB}=4\text{V}$, $I_C=0$
DC Current Gain	h_{FE}	40	-	240		$V_{CE}=6\text{V}$, $I_C=1\text{mA}$
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.3	V	$I_C=10\text{mA}$, $I_B=1\text{mA}$
Transition Frequency	f_T	-	550	-	MHz	$V_{CE}=6\text{V}$, $I_C=1\text{mA}$
Collector output capacitance	C_{ob}	-	1.4	-	pF	$V_{CB}=6\text{V}$, $I_E=0$, $f=1\text{MHz}$

CHARACTERISTIC CURVES

Fig. 1 $P_C - T_a$

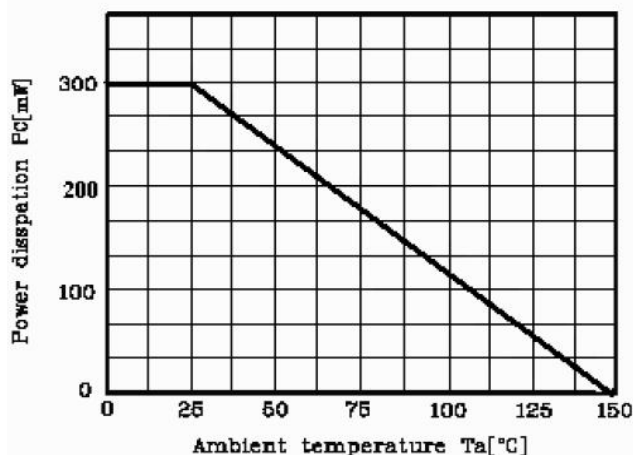


Fig. 2 $I_C - V_{CE}$

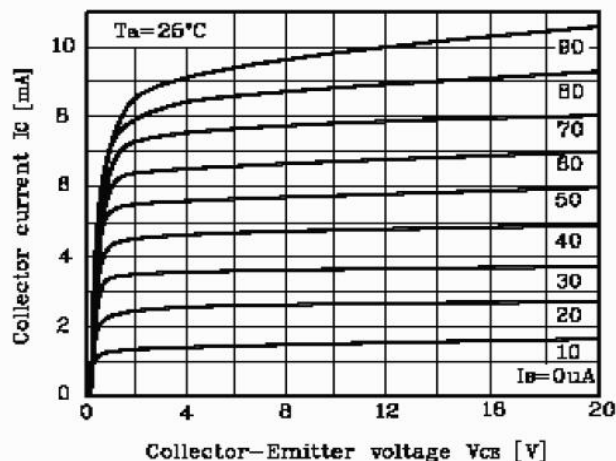


Fig. 3 $h_{FE} - I_C$

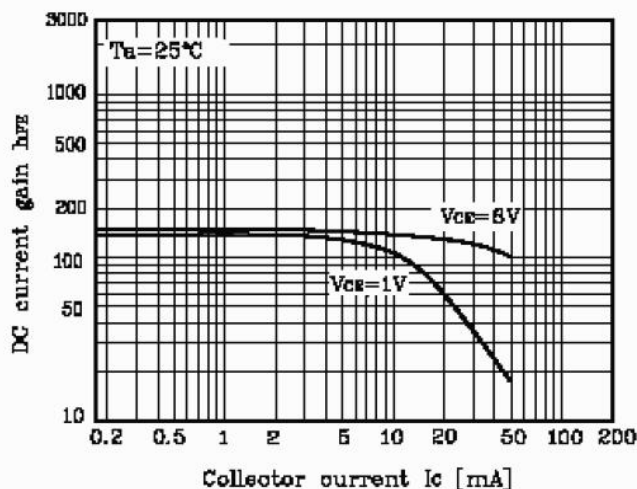


Fig. 4 $f_T - I_E$

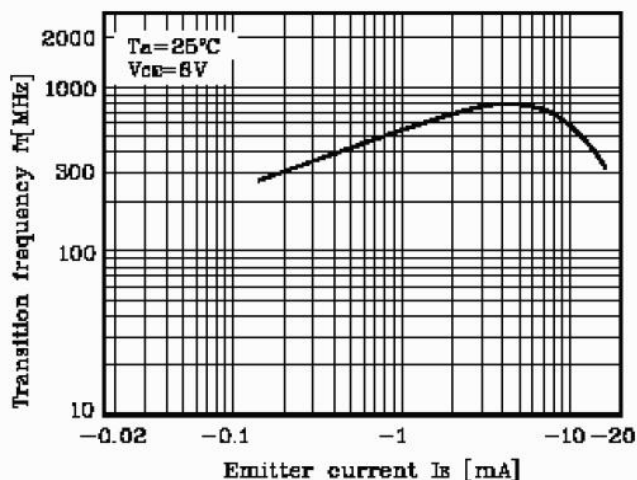


Fig. 5 $C_{ob} - V_{CB}$, $C_{ib} - V_{EB}$

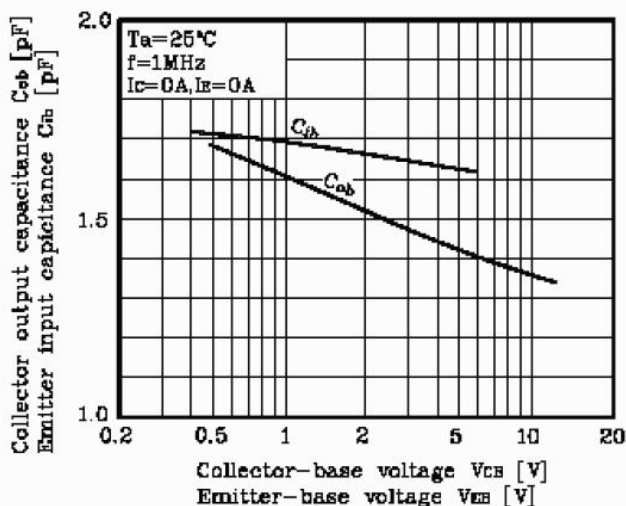


Fig. 6 $Y_{ie} - I_C$

