



JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-92 Plastic-Encapsulate Transistors

2SC5343 TRANSISTOR (NPN)

FEATURES

- Excellent h_{FE} Linearity
: $h_{FE}(2)=100(\text{Typ})$ at $V_{CE}=6V, I_C=150mA$
: $h_{FE}(I_C=0.1mA) / h_{FE}(I_C=2mA)=0.95(\text{Typ})$.
- Low Noise: $NF=10dB(\text{Typ})$. At $f=1KHz$.

TO-92

1. EMITTER
2. COLLECTOR
3. BASE



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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	150	mA
P_C	Collector power dissipation	625	mW
T_J	Junction Temperature	150	$^{\circ}C$
T_{stg}	Storage Temperature	-55-150	$^{\circ}C$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100 \mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10 \mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=60V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=6V, I_C=2mA$	70		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$		0.1	0.25	V
Transition frequency	f_T	$V_{CE}=10V, I_C=1mA$	80			MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$			3.5	pF
Noise figure	NF	$V_{CE}=6V, I_C=0.1mA$, $f=1KHz, R_g=10K \Omega$			10	dB

CLASSIFICATION OF h_{FE}

Rank	O	Y	G	L
Range	70-140	120-240	200-400	300-700

Typical Characteristics

2SC5343

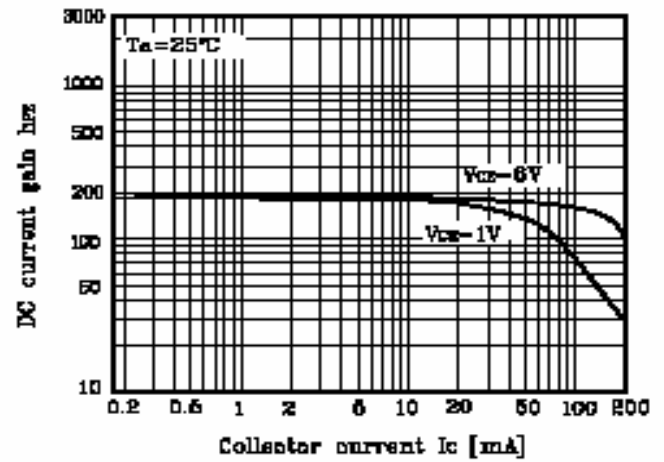
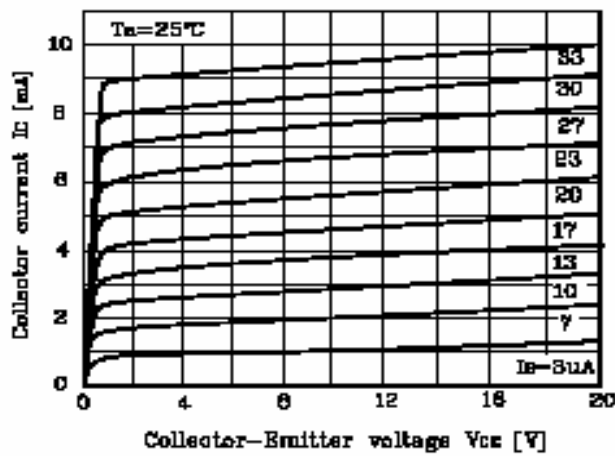


Fig. 5 $V_{CE(sat)} - I_C$

