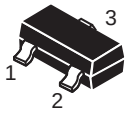
WEITRON

2SC5354

NPN Plastic-Encapsulate Transistor

Lead(Pb)-Free



1. BASE
2. EMITTER
3. COLLECTOR

SOT-23

FEATURES

* Excellent h_{FE} Linearity
* Low Noise

MAXIMUM RATINGS (T_A=25℃ 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
I_b	Base Current -Continuous	50	mA
P_C	Collector Power Dissipation	0.2	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, 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= 10μA, 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	$h_{FE(1)}$	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,Rg=10KΩ			10	dB

CLASSIFICATION OF h_{FE}

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

Typical Characteristics

Fig. 1 P_C –T_a

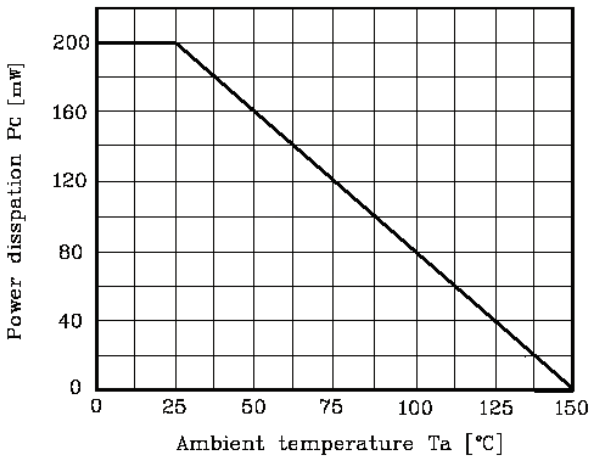


Fig. 2 I_C -V_{BE}

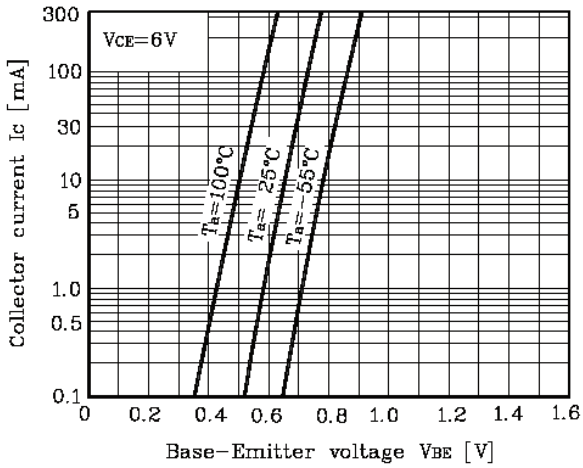


Fig. 3 I_C -V_{CE}

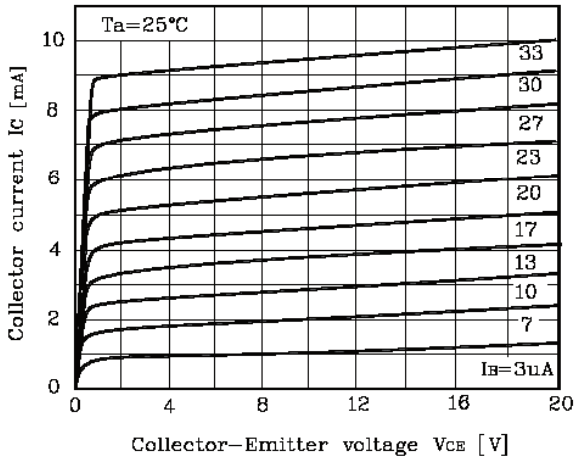


Fig. 4 h_{FE} -I_C

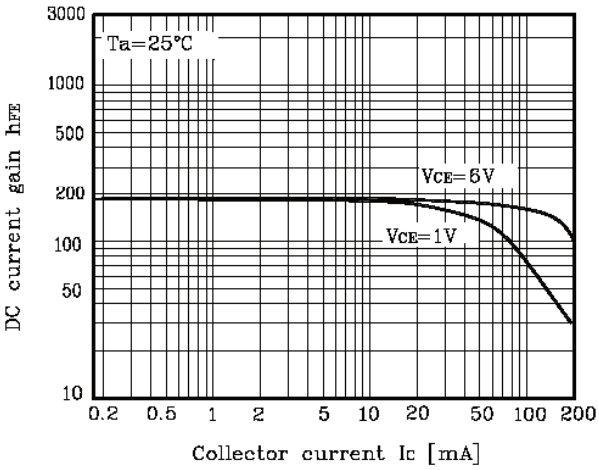
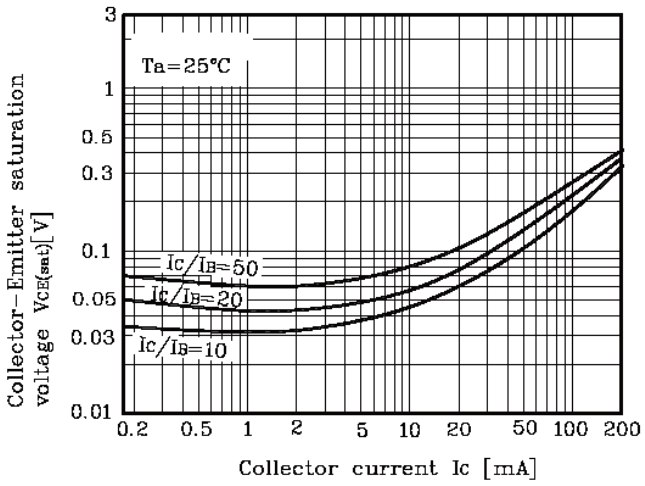
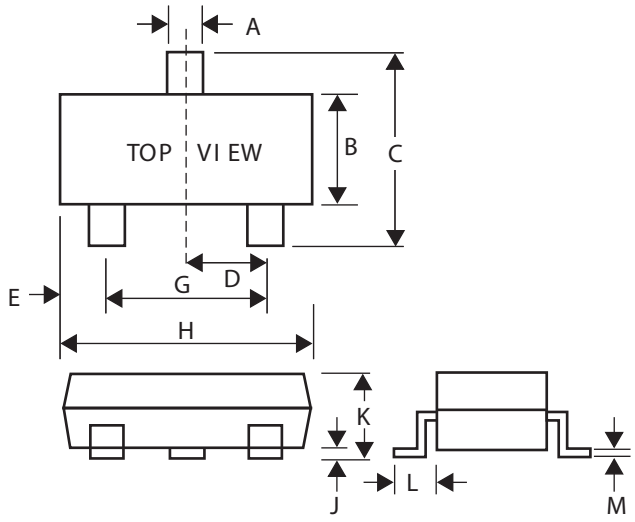


Fig. 5 $V_{CE(sat)}$ -I_C



SOT-23 Package OutlineDimensions

Unit:mm



Dim	Min	Max
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25