



FEATURES

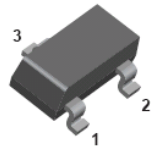
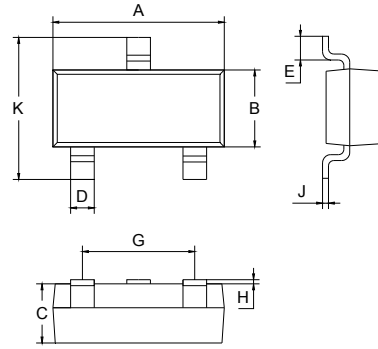
- High voltage and high current
 $V_{CE0}=50V(\text{Min}), I_C=150\text{mA}(\text{Max})$.
- Excellent h_{FE} linearity : $h_{FE(2)}=100$ (Typ) at $V_{CE}=6V, I_C=150\text{mA}$
 $h_{FE}(I_C=0.1\text{mA}) / h_{FE}(I_C=2\text{mA})=0.95(\text{Typ})$
- Low noise.
- Complementary to 2SA1015.

APPLICATIONS

- Audio frequency general purpose amplifier applications.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SC1815	HF	SOT-23



SOT-23

MAXIMUM RATING @ $T_a=25^\circ\text{C}$ unless otherwise specified

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	50	mA
P_C	Collector Dissipation	400	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	$^\circ\text{C}$

SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

ELECTRICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

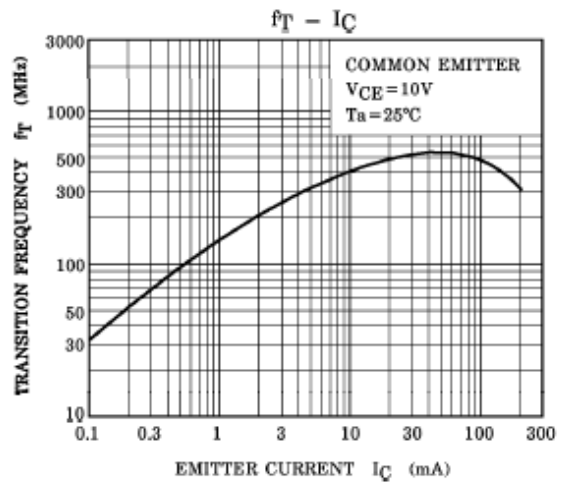
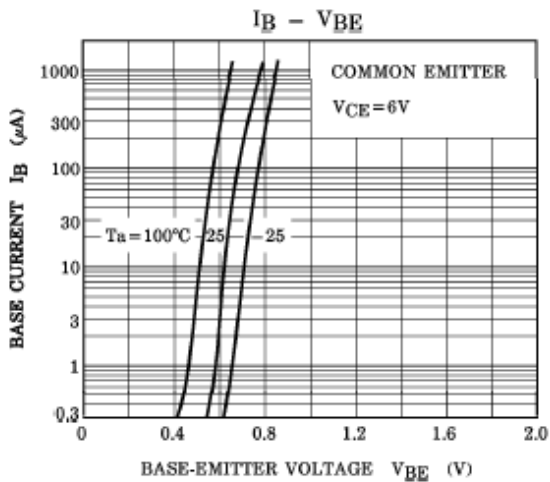
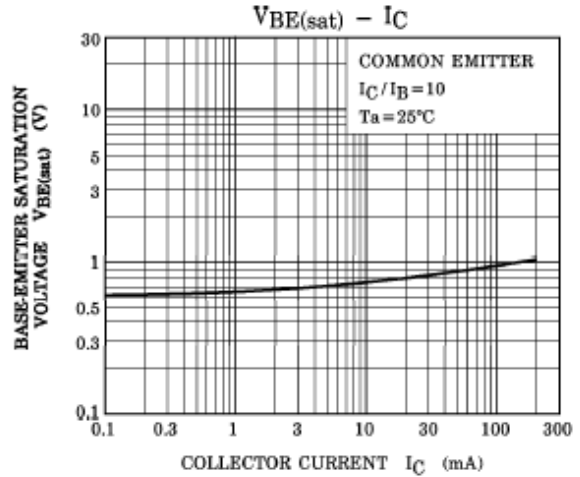
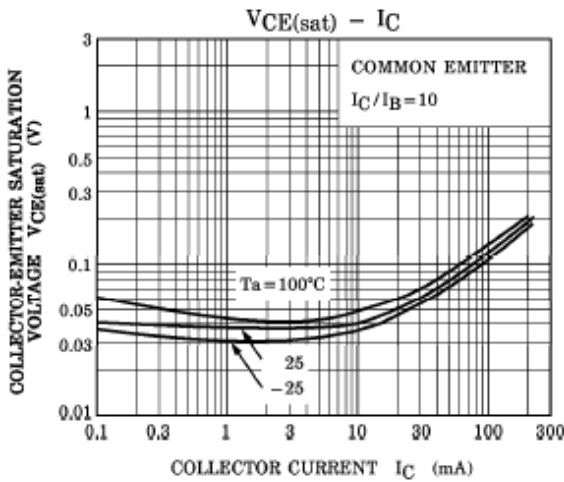
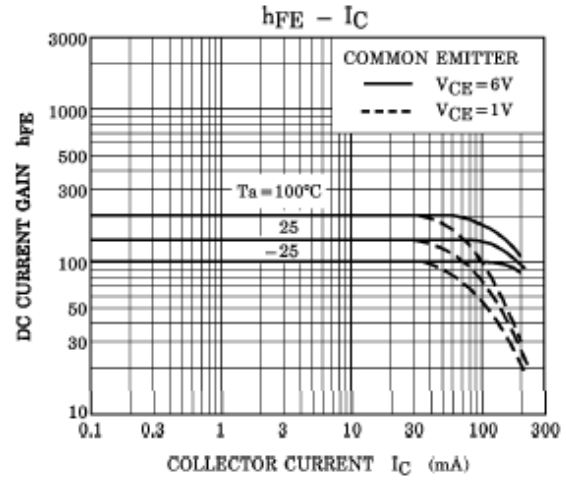
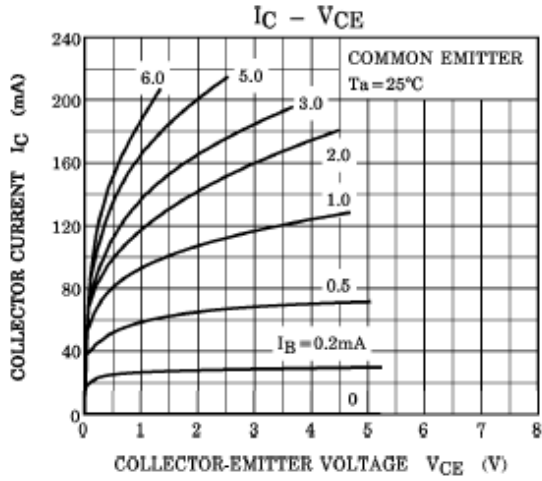
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=0.1\text{mA}, I_B=0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_C=0.1\text{mA}, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=60\text{V}, I_E=0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=50\text{V}, I_B=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$			0.1	μA
DC current gain	h_{FE}	$V_{CE}=6\text{V}, I_C=2\text{mA}$	130		400	
		$V_{CE}=6\text{V}, I_C=150\text{mA}$	25	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$		0.1	0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=100\text{mA}, I_B=10\text{mA}$			1	V
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=1\text{mA}$ $f=30\text{MHz}$	80			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	130-200	200-400



TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
SOT-23	3000pcs	7inch	45,000pcs	203×203×195	180,000pcs	438×438×220