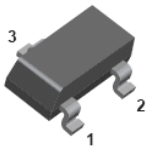
2SC1815

Silicon Epitaxial Planar Transistor

RoHS COMPLIANT

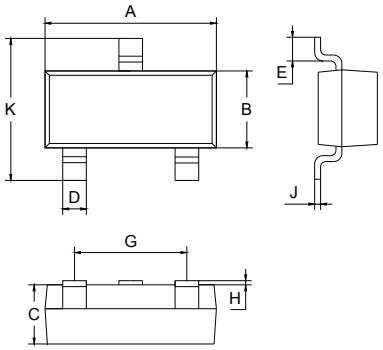


FEATURES

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

APPLICATIONS

- Audio frequency general purpose amplifier applications.



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		

SOT-23

ORDERING INFORMATION

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

MAXIMUM RATING @ Ta=25℃ 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	℃

ELECTRICAL CHARACTERISTICS @ Ta=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=0.1mA,I_B=0	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_C=0.1mA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=60V,I_E=0			0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=50V,I_B=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	130		400	
		V_{CE}=6V,I_C=150mA	25	100		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=100mA, I_B=10mA		0.1	0.25	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=100mA, I_B=10mA			1	V
Transition frequency	f_T	V_{CE}=10V, I_C= 1mA f=30MHz	80			MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	L	H
Range	130-200	200-400

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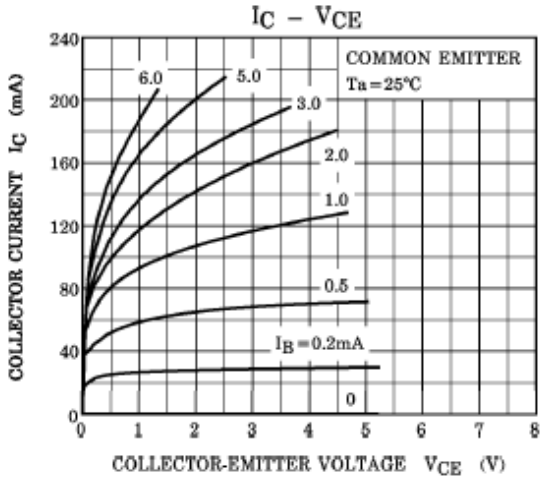
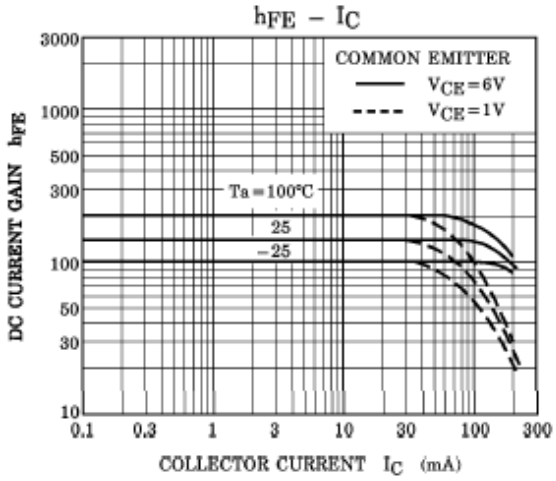
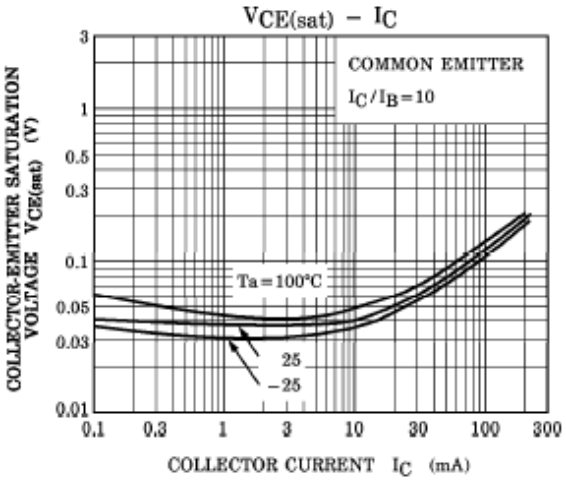
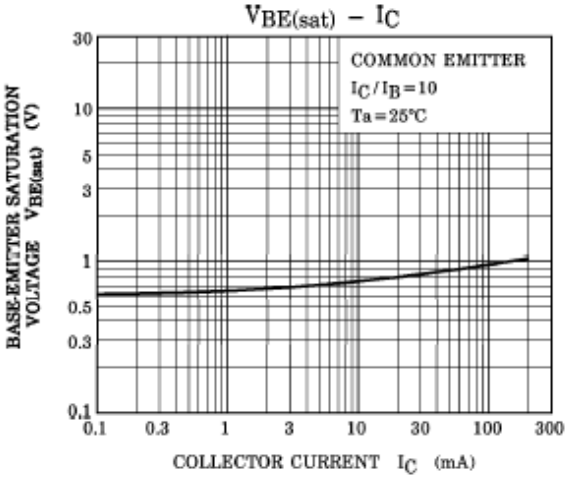
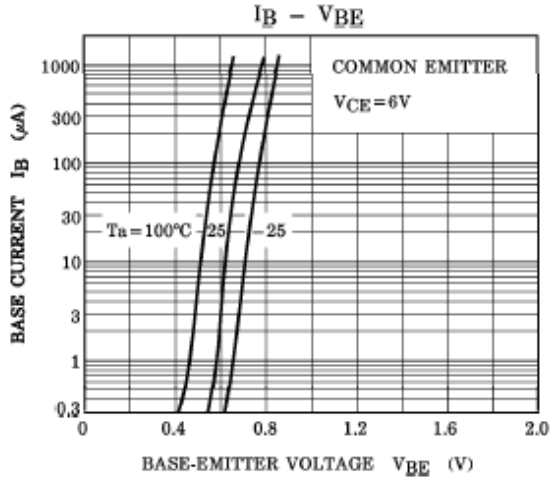
TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

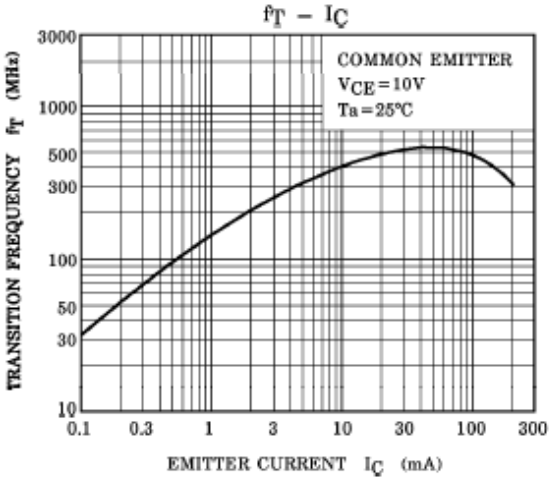












Device	Package	Shipping
2SC1815	SOT-23	3000/Tape&Reel