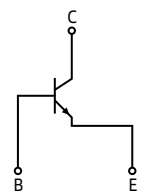


Features

- High voltage, excellent hFE linearity.
- General power amplifier application and low speed switching.



SOT23



Equivalent Circuit

Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	60	V
V_{CE0}	Collector-Emitter Voltage	50	V
V_{EB0}	Emitter-Base Voltage	5	V
I_C	Collector Current	0.15	A
P_C	Collector Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction And Storage Temperature Range	-55 ~ +150	$^{\circ}\text{C/W}$

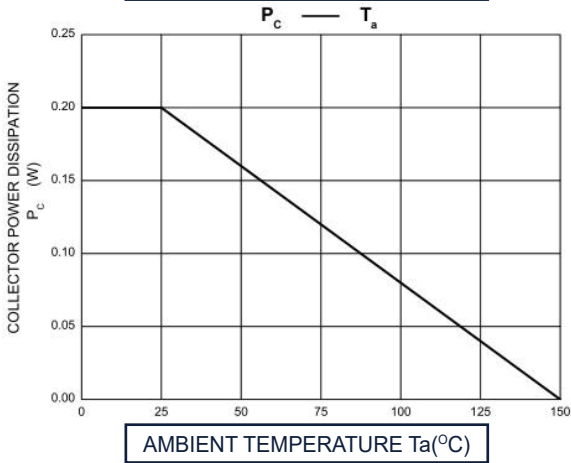
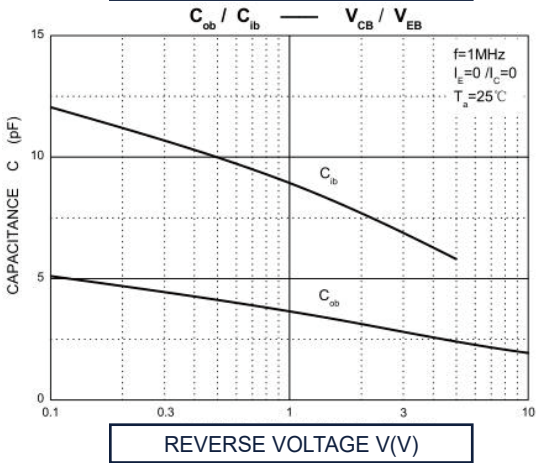
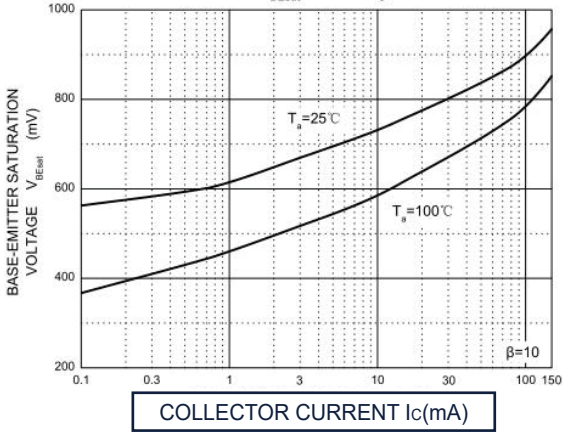
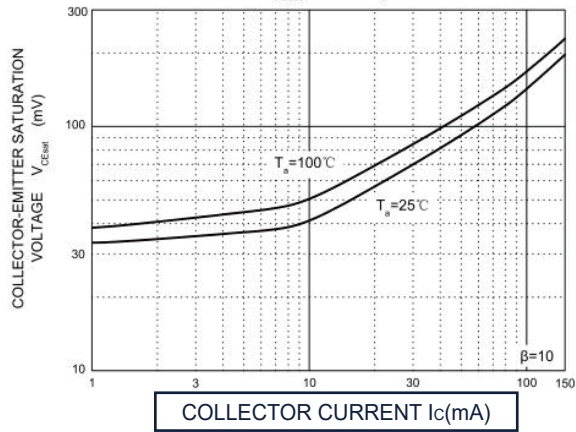
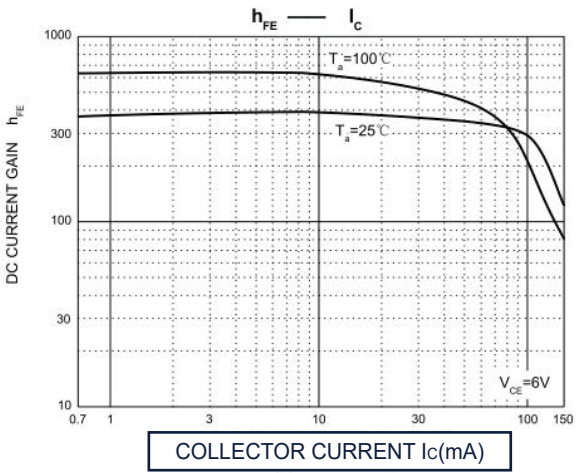
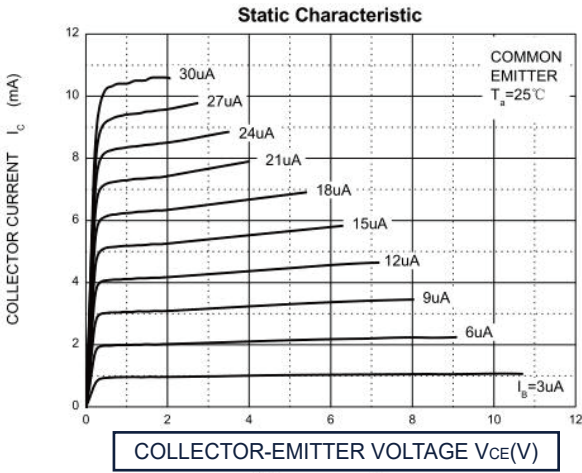
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=100\mu\text{A}, I_E=0$	60			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=100\text{mA}, I_B=0$	50			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=100\mu\text{A}, I_C=0$	5			V
I_{CER}	Collector cut-off current	$V_{CE}=55\text{V}, R=10\text{M}\Omega$			0.1	μA
I_{CBO}	Collector cut-off current	$V_{CB}=60\text{V}, I_E=0$			0.1	μA
I_{EBO}	Emitter cut-off current	$V_{CB}=5\text{V}, I_C=0$			0.1	μA
$h_{FE(1)}$	DC current gain(1)	$V_{CE}=6\text{V}, I_C=1\text{mA}$	200		400	
$h_{FE(2)}$	DC current gain(2)	$V_{CE}=6\text{V}, I_C=0.1\text{mA}$	40			
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=100\text{mA}, I_B=10\text{mA}$			0.3	V
$V_{BE(sat)}$	Base-emitter saturation voltage				1.0	V
f_T	Transition frequency	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=30\text{MHz}$	150			MHz
C_{ob}	Collector output capacitance	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			3.0	pF
NF	Noise figure	$V_{CE}=6\text{V}, I_C=0.1\text{mA}$ $R_g=10\text{k}\Omega, f=1\text{kHz}$		4	10	dB

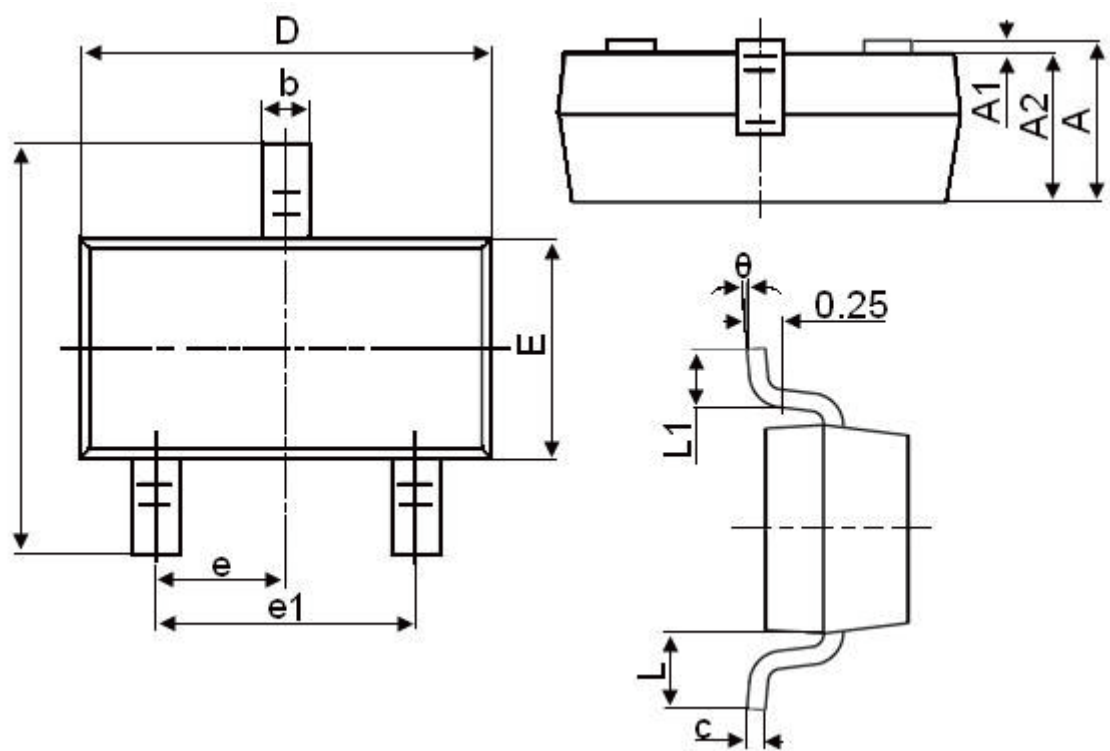
Ordering information

Product ID	Pack	Naming rule	Marking	$h_{FE(1)}$	Qty(PCS)
C945	SOT23	C945 ↓ 产品名称 product name	CR	200 ~ 400	3000

Typical Characteristics



SOT23 Package Outline Dimensions



Symbol	Dimensions in Millimeters	
	mm	
	Min	Max
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°