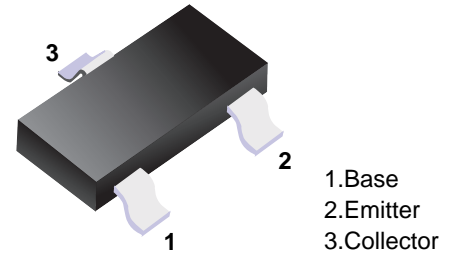


■ NPN Transistors



■ Simplified outline(SOT-23)

■ Features

- Collector current up to 150mA
- High hFE linearity
- Complementary to 2SA733

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to base voltage	V _{CB0}	60	V
Collector to emitter voltage	V _{CEO}	50	V
Emitter to base voltage	V _{EBO}	5	V
Collector current (DC)	I _c	150	mA
Power dissipation	P _c	200	mW
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-55 to +150	°C

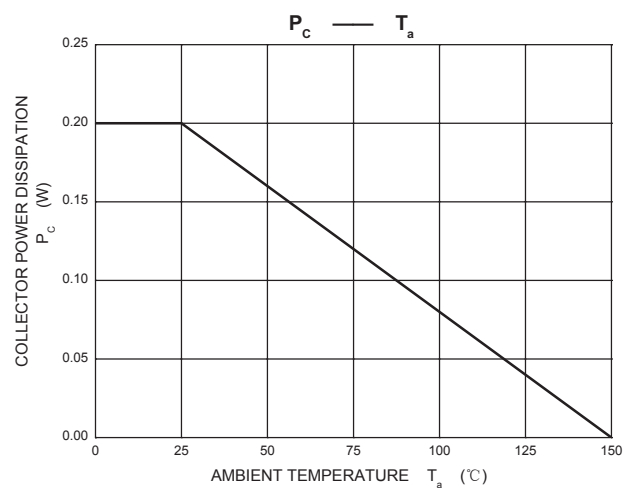
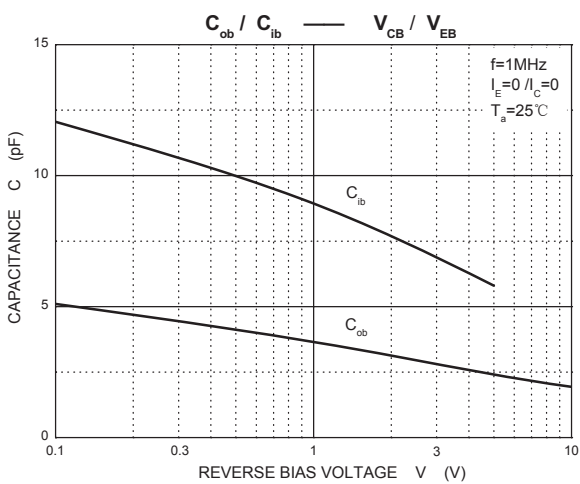
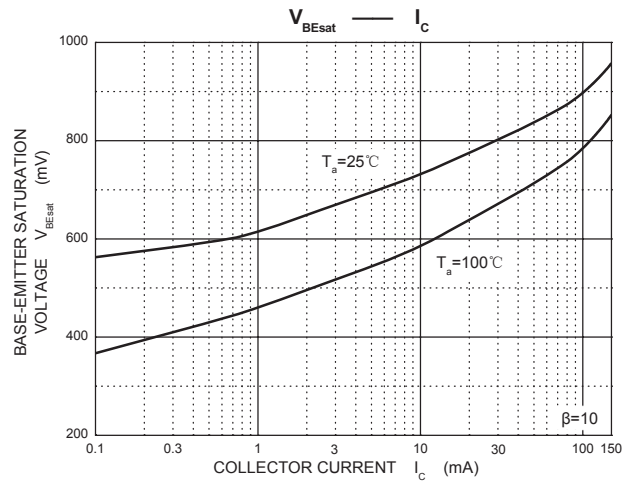
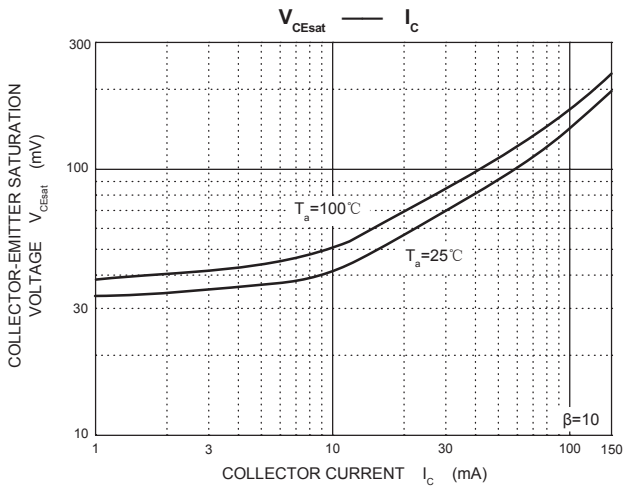
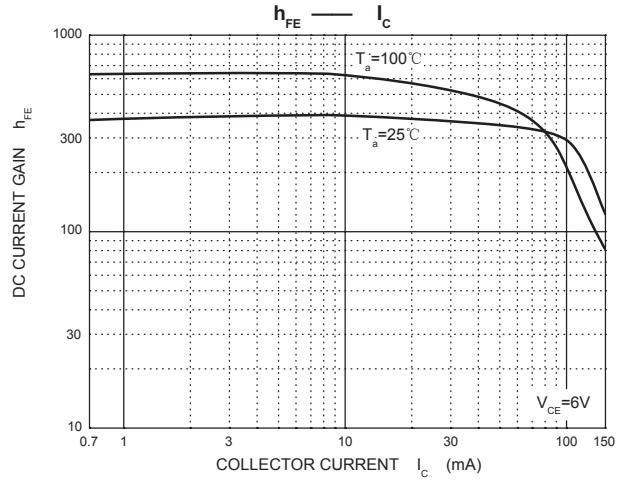
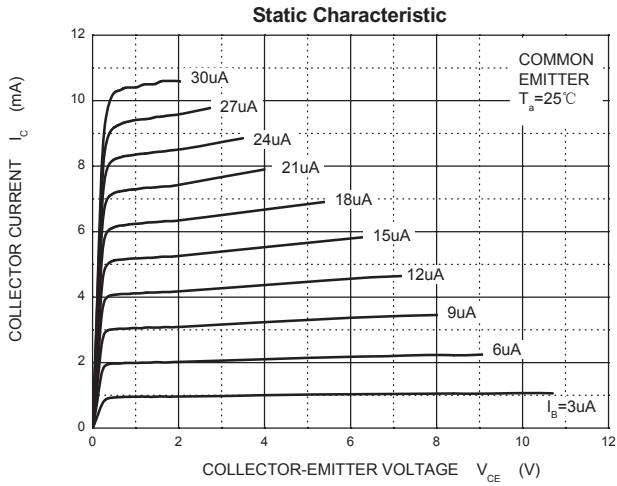
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _c =100 μA, I _E =0	60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _c =1mA, I _B =0	50			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100 μA, I _c =0	5			V
Collector cutoff current	I _{CBO}	V _{CB} = 60V, I _E = 0			0.1	μA
Emitter cutoff current	I _{EBO}	V _{EB} = 5.0 V, I _c = 0			0.1	μA
DC current gain	h _{FE}	V _{CE} = 6.0V, I _c = 1.0mA	130		400	
		V _{CE} = 6.0V, I _c = 0.1mA	40			
Collector saturation voltage	V _{CE(sat)}	I _c =100mA, I _B =10mA			0.3	V
Base saturation voltage	V _{BE(sat)}	I _c =100mA, I _B =10mA			1.0	V
Collector to base capacitance	C _{ob}	V _{CB} = 10 V, I _E = 0, f = 1 MHz			3.0	pF
Noise figure	NF	V _{CE} =6V, I _c =0.1mA, R _g =10k Ω, f=1kHz		4	10	dB
Transition frequency	f _t	V _{CE} =6V, I _c =10mA, f = 30 MHz	150			MHz

■ Classification of hfe(1)

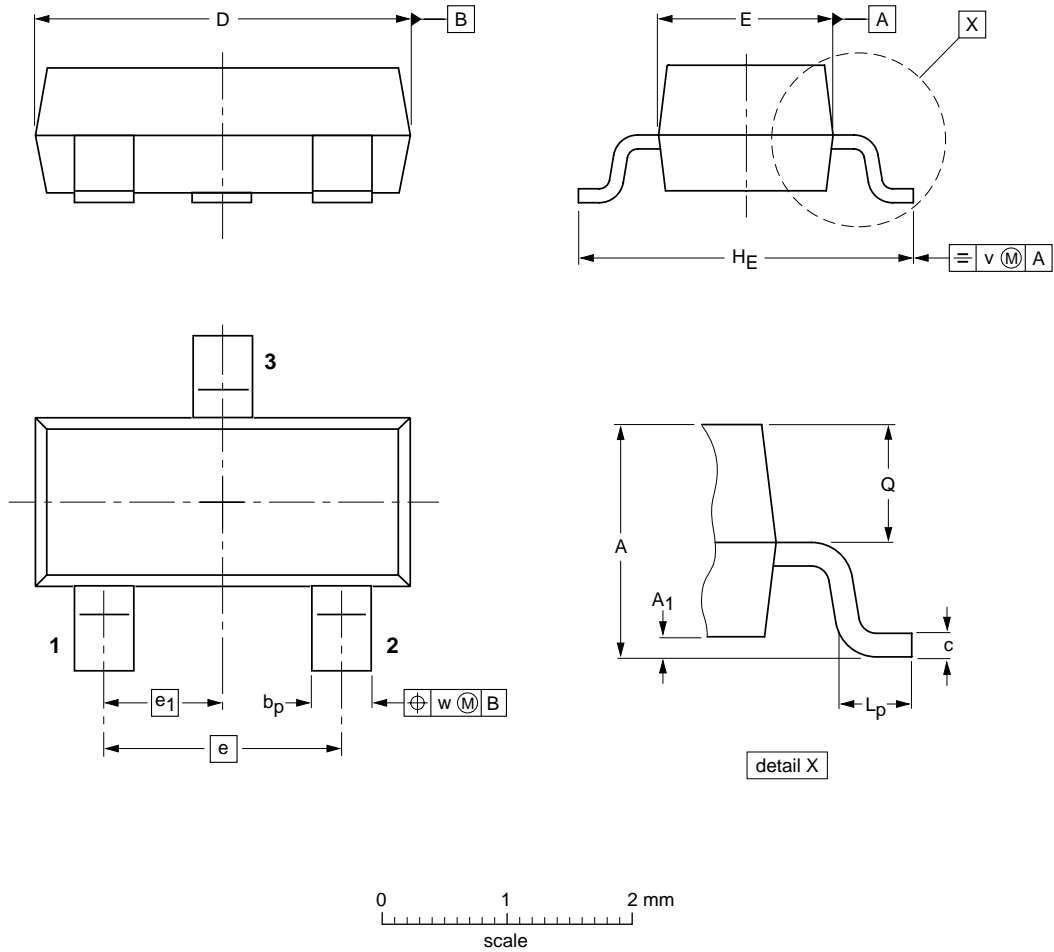
Type	2SC945-L	2SC945-H
Range	130-200	200-400
Marking	CRL	CR

■ Typical Characteristics



Package Outline

SOT-23



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max.	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w
mm	1.1 0.9	0.1	0.48 0.38	0.15 0.09	3.0 2.8	1.4 1.2	1.9	0.95	2.5 2.1	0.45 0.15	0.55 0.45	0.2	0.1

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel, 7" reel	3000	EIA-481-1