

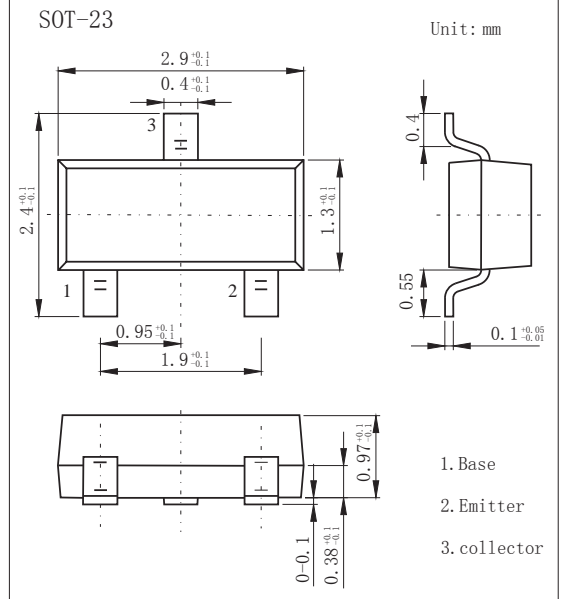
SOT-23 Plastic-Encapsulate Transistors

Features

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

MECHANICAL DATA

- Case style: SOT-23 molded plastic
- Mounting position: any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

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 _{EB0}	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

PACKAGE INFORMATION

Device	Package	Shipping
2SC945	SOT-23	3000/Tape&Reel

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 =10kΩ, f=1kHz		4	10	dB
Transition frequency	f _T	V _{CE} =6V, I _C =10mA, f = 30 MHz	150			MHz

Classification of h_{FE}(1)

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

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

