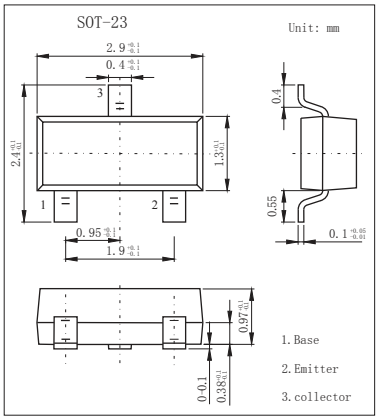
NPN Transistors
2SC945



■ Features

- Collector current up to 150mA
- High h_{FE} linearity
- Complementary to A733

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	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	℃
Storage temperature range	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

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=1kMHZ		4	10	dB
Transition frequency	f_T	V_{CE}=6V,I_C=10mA,f =30 MHz	150			MHz

■ Classification of $h_{fe(1)}$

Marking	CR	
Rank	L	H
Range	130-200	200-400

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■ Typical Characterisitics