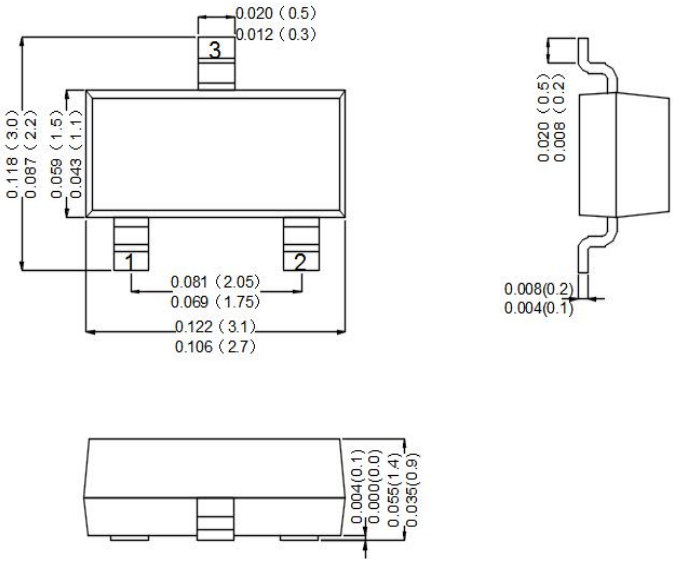
C945

TRANSISTOR (NPN)

Features

SOT-23

- Excellent h_{FE} Linearity
- Low noise
- Complementary to A733



Dimensions in inches and (millimeters)

Mechanical Data

- Case:Molded Plastic,SOT-23
- Epoxy:UL 94V-0 rate flame retardant
- Terminals:Plated Leads Solderable perMIL-STD-750,Method-2026.
- Marking: CR
- Mounting Position : Any.
- Equivalent Circuit:

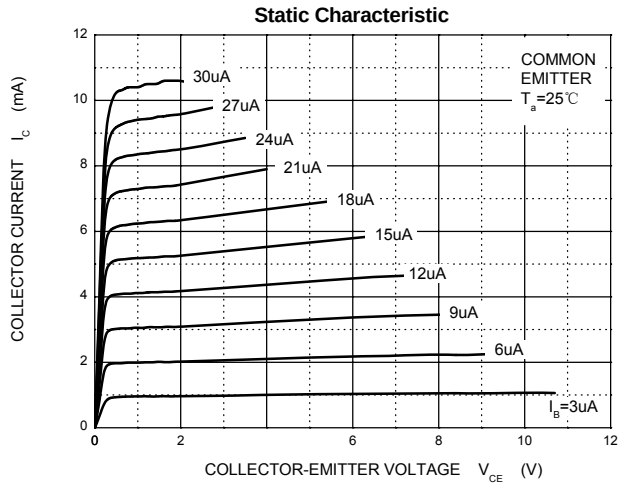
Maximum Ratings Maximum Ratings (Rating at 25℃ ambient temperature unless otherwise specified.)

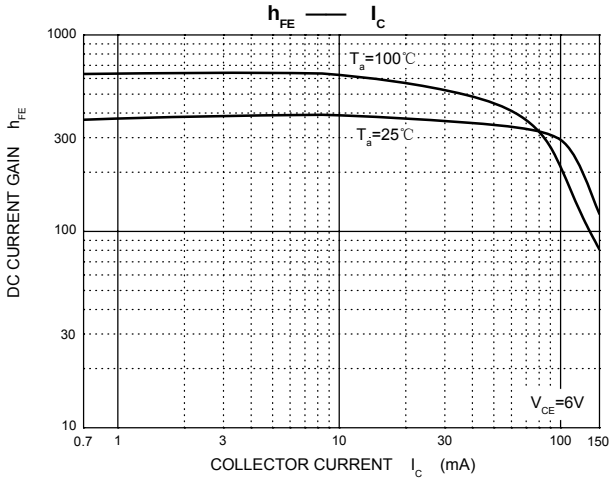
Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	150	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55-150	℃

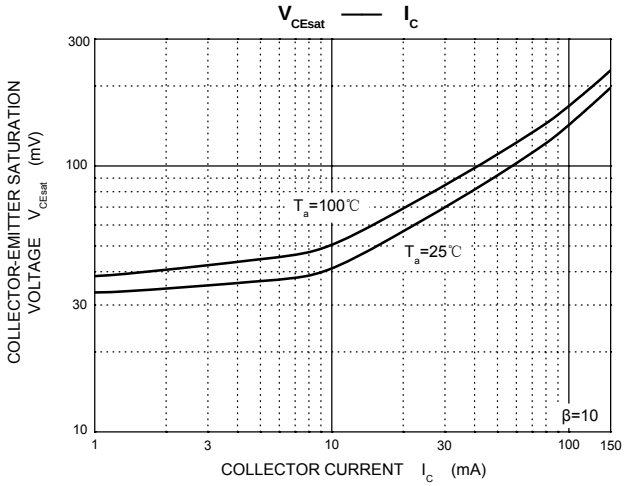
Electrical Characteristics (Rating at 25℃ ambient temperature unless otherwise specified.)

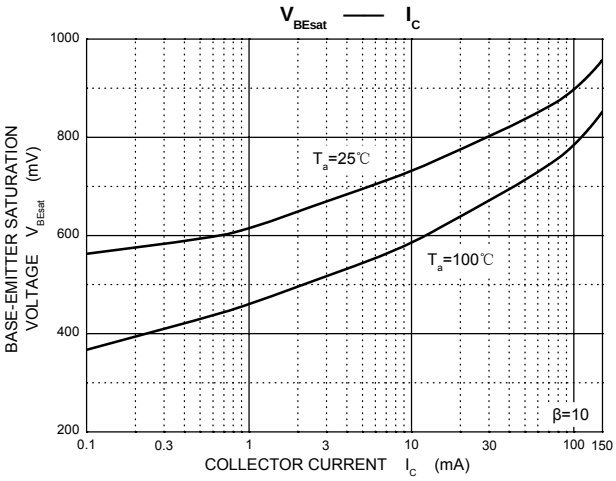
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	I_C=100uA, I_E=0	60			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	I_C=1mA , I_B=0	50			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E=0.1mA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=60V, I_E=0			0.1	μA
Collector cut-off current	I_{CER}	V_{CE}=55V, R=10MΩ			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0			0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=6V, I_C=1mA	200		400	
	$h_{FE(2)}$	V_{CE}=6V, I_C=0.1mA	40			
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=100mA, I_B=10mA			0.3	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C=100mA, I_B=10mA			1	V
Transition frequency	f_T	V_{CE}=6V,I_C=10mA,f =30 MHz	150			MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz			3.0	pF
Noise figure	NF	V_{CE}=6V, I_C=0.1mA R_g=10kΩ, f=1kMHz		4	10	dB

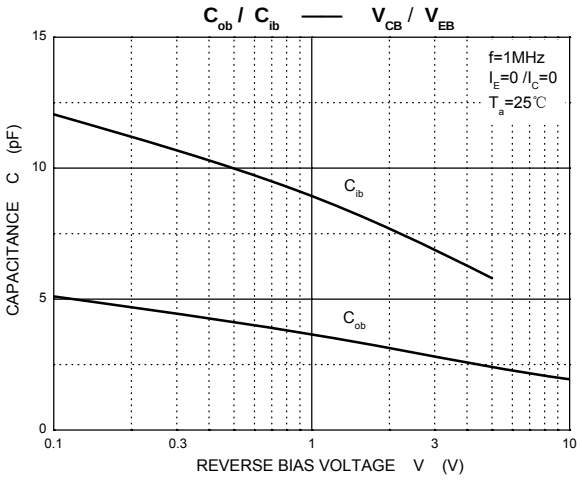
Rating And Characteristic Curves

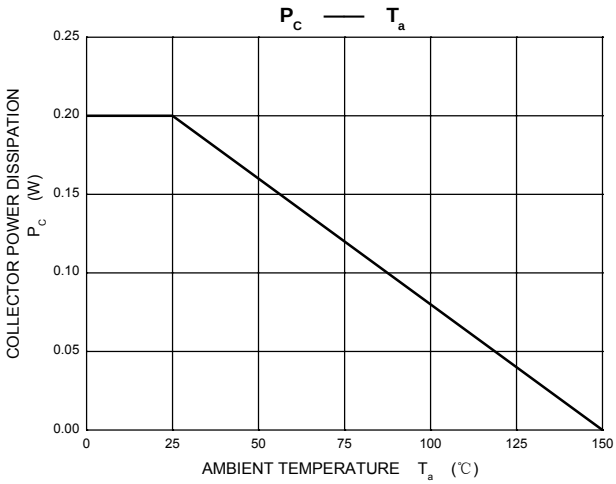












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