

FEATURES

Complementary to 2SA733

2SC945(NPN)

MARKING: CR

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
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	0.2	W
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55 to +150	°C



ELECTRICAL CHARACTERISTICS (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	V_{CEO}	$I_C=1mA, I_B=0$	50			V
Emitter-base breakdown voltage	V_{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}	$V_{CE}=55V, R=10M\Omega$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=6V, I_C=1mA$	130		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	$V_{CE}=6V, I_C=10mA, f=30MHz$	150			MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$			3.0	pF
Noise figure	NF	$V_{CE}=6V, I_C=0.1mA$ $R_g=10k\Omega, f=1kHz$		4	10	dB

 CLASSIFICATION OF $h_{FE(1)}$

Rank	O	Y	CR	BL
Range	70-140	120-240	200-400	350-700

2SC945 Typical Characteristics

