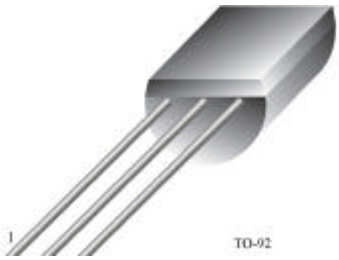
Minilogic Device Corporation

2SC945



1. Emitter 2. Base 3. Collector

Audio Frequency Amplifier & High Frequency OSC.

- Complement to 2SA733
- Collector-Base Voltage : V_{CBO}=60V
- High Current Gain Bandwidth Product : f_T=300MHz (TYP)

NPN Epitaxial Silicon Transistor

Absolute Maximum Ratings Ta=25 °C unless otherwise noted

Symbol	Parameter	Ratings	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	150	mA
P_C	Collector Power Dissipation	250	mW
T_J	Junction Temperature	150	°C
T_{STG}	Storage Temperature	-55 ~ 150	°C

Electrical Characteristics Ta=25 °C unless otherwise noted

Symbol	Parameter	Test condition	Min.	Typ.	Max.	Units
BV_{CBO}	Collector-Base Breakdown Voltage	I_C = 100uA, I_E=0	60			V
BV_{CEO}	Collector-Emitter Breakdown Voltage	I_C = 10mA, I_B=0	50			V
BV_{EBO}	Emitter-Base Breakdown Voltage	I_E = 10uA, I_C=0	5			V
I_{CBO}	Collector Cut-off Current	V_{CB} = 40V, I_E=0			0.1	uA
I_{EBO}	Emitter Cut-off Current	V_{EB} = 3V, I_C = 0			0.1	uA
h_{FE}	DC Current Gain	V_{CE} = 6V, I_C = 1.0mA	40		700	
V_{CE} (sat)	Collector-Emitter Saturation Voltage	I_C = 100mA, I_B = 10mA		0.15	0.3	V
f_T	Current Gain Bandwidth Product	V_{CE} = 6V, I_C = 10mA		300		MHz
C_{ob}	Output Capacitance	V_{CB} = 6V, I_E = 0, f=1MHz		2.5		pF
NF	Noise Figure	V_{CE} = 6V, I_C = 0.5mA f=1KHz, Rs=500Ω		4.0		dB

h_{FE} Classification

Classification	R	O	Y	G	L
h_{FE}	40 ~ 80	70 ~ 140	120 ~ 240	200 ~ 400	350 ~ 700