

TO-92 Plastic-Encapsulate Transistors

2SA844 TRANSISTOR (PNP)

FEATURES

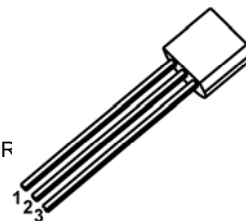
- High DC Current Gain
- Low Frequency Amplifier

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-55	V
V_{CEO}	Collector-Emitter Voltage	-55	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-0.1	A
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	416	$^\circ\text{C}/\text{W}$
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^\circ\text{C}$

TO - 92

1. EMITTER
2. COLLECTOR
3. BASE



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-0.01\text{mA}, I_E=0$	-55			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, I_B=0$	-55			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-0.01\text{mA}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-18\text{V}, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-2\text{V}, I_C=0$			-0.05	μA
DC current gain	h_{FE}	$V_{CE}=-12\text{V}, I_C=-2\text{mA}$	160		800	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-10\text{mA}, I_B=-1\text{mA}$			-0.5	V
Base-emitter voltage	V_{BE}	$V_{CE}=-12\text{V}, I_C=-2\text{mA}$			-0.75	V
Collector output capacitance	C_{ob}	$V_{CE}=-10\text{V}, I_C=0, f=1\text{MHz}$		2		pF
Transition frequency	f_T	$V_{CE}=-12\text{V}, I_C=-2\text{mA}$		200		MHz

CLASSIFICATION OF h_{FE}

RANK	C	D	E
RANGE	160-320	250-500	400-800