

Transistors

2SA9012

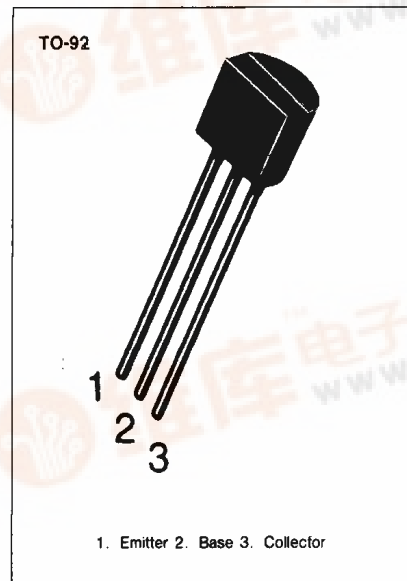


1W OUTPUT AMPLIFIER OF POTABLE RADIOS IN CLASS B PUSH-PULL OPERATION.

- High total power dissipation. (PT=625mW)
- High Collector Current. (I_c = -500mA)
- Excellent h_{FE} linearity

ABSOLUTE MAXIMUM RATINGS (T_a = 25°C)

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	V _{CBO}	-40	V
Collector-Emitter Voltage	V _{CEO}	-20	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current	I _c	-500	mA
Collector Dissipation	P _c	625	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55~150	°C



ELECTRICAL CHARACTERISTICS (T_a = 25°C)

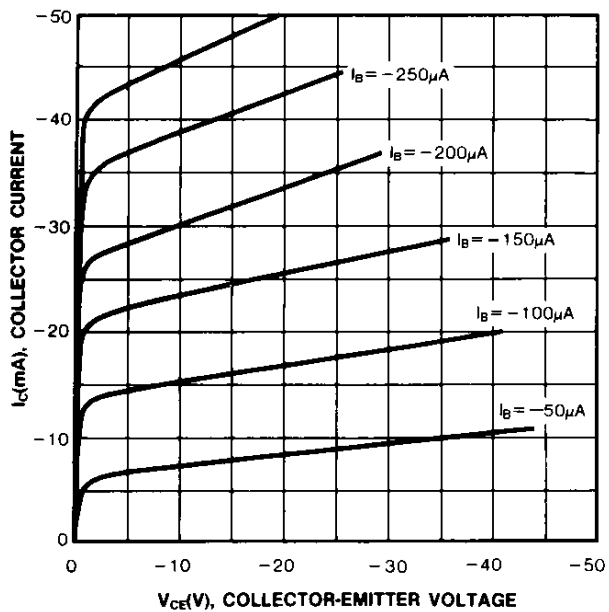
Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV _{CBO}	I _c = -100μA, I _E = 0	-40			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _c = -1mA, I _B = 0	-20			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E = -100μA, I _C = 0	-5			V
Collector Cutoff Current	I _{CBO}	V _{CB} = -25V, I _E = 0			-100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} = -3V, I _C = 0			-100	nA
DC Current Gain	h _{FE1}	V _{CE} = -1V, I _C = -50mA	64	120	202	
	h _{FE2}	V _{CE} = -1V, I _C = -500mA	40	90		
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C = -500mA, I _B = -50mA		-0.18	-0.6	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C = -500mA, I _B = -50mA		-0.95	-1.2	V
Base-Emitter On Voltage	V _{BE(on)}	V _{CE} = -1V, I _C = -10mA	-0.6	-0.67	-0.7	V

h_{FE} (1) CLASSIFICATION

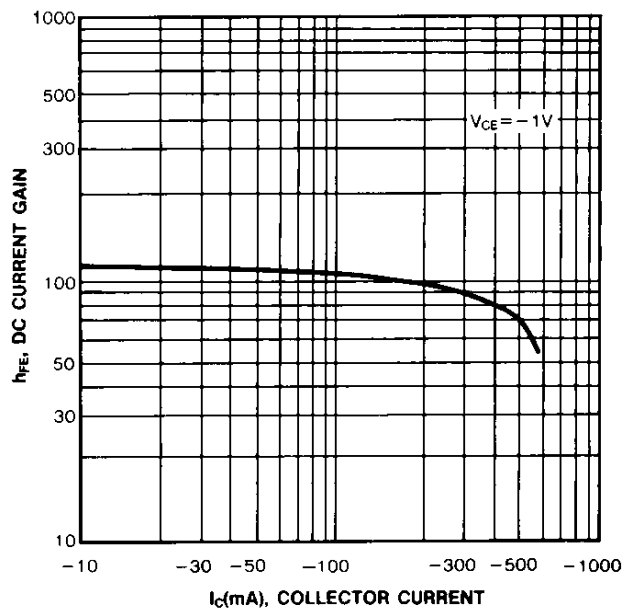
Classification	D	E	F	G	H
h _{FE} (1)	64-91	78-112	96-135	112-166	144-202



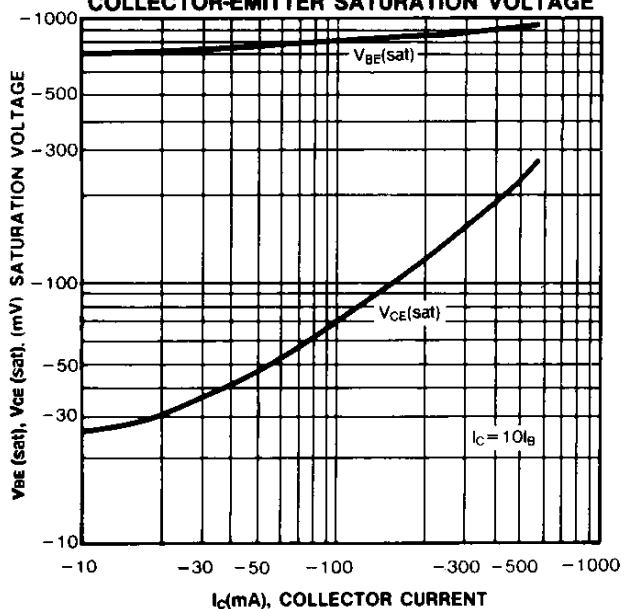
STATIC CHARACTERISTIC



DC CURRENT GAIN



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT

