

Transistors

2SC9013

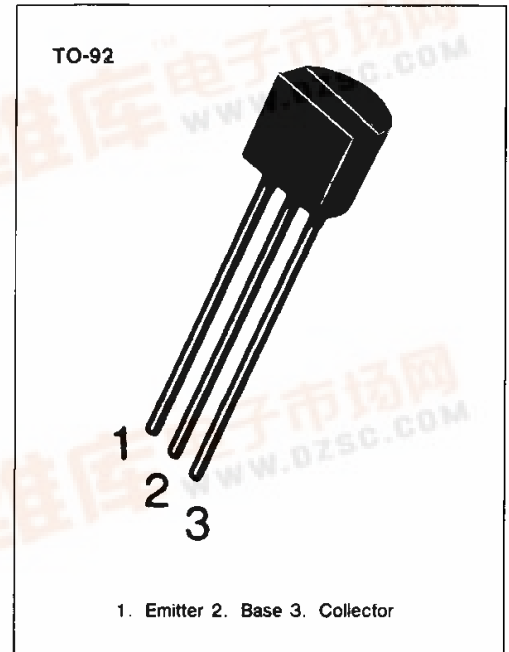


1W OUTPUT AMPLIFIER OF POTABLE RADIOS IN CLASS B PUSH-PULL OPERATION.

- High total power dissipation. ($P_T=625mW$)
- High Collector Current. ($I_C=500mA$)
- Complementary to SS9012
- Excellent h_{FE} linearity

ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ C$)

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	$^\circ C$
Storage Temperature	T_{stg}	-55~150	$^\circ C$

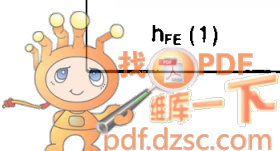


ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

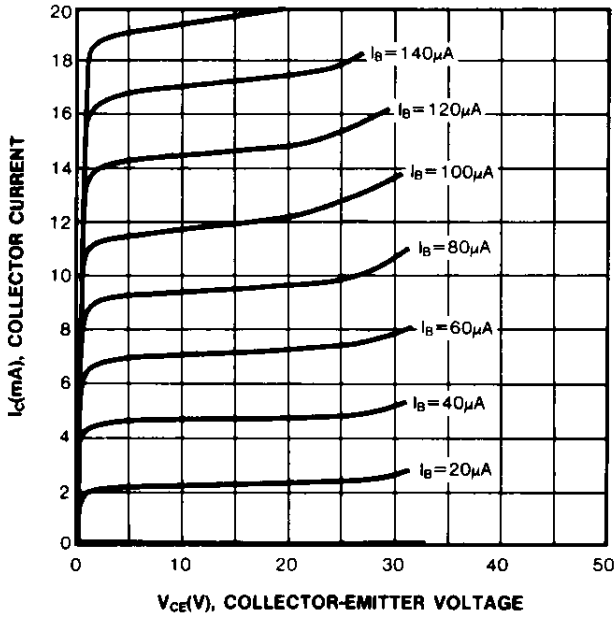
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C=100\mu A, I_E=0$	40			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C=1mA, I_B=0$	20			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=100\mu A, I_C=0$	5			V
Collector Cutoff Current	I_{CBO}	$V_{CB}=25V, I_E=0$			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	120		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500mA, I_B=50mA$		0.16	0.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=500mA, I_B=50mA$		0.91	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

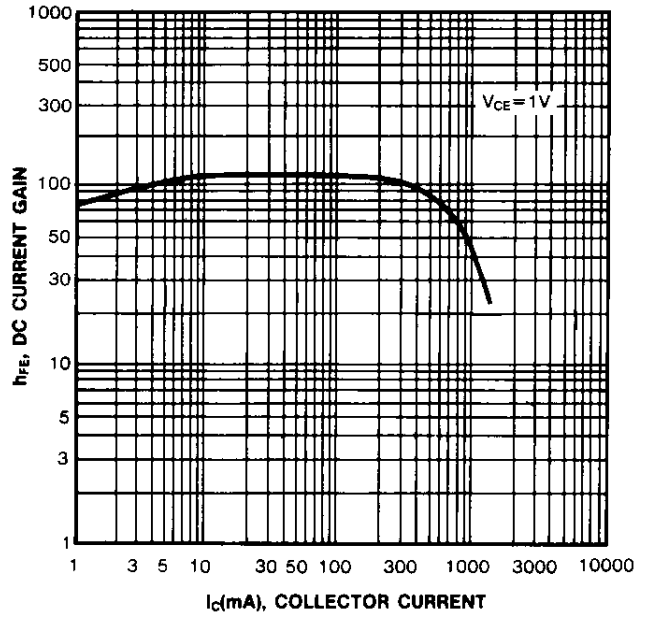
Classification	D	E	F	G	H
h_{FE} (1)	64-91	78-112	96-135	112-166	144-202



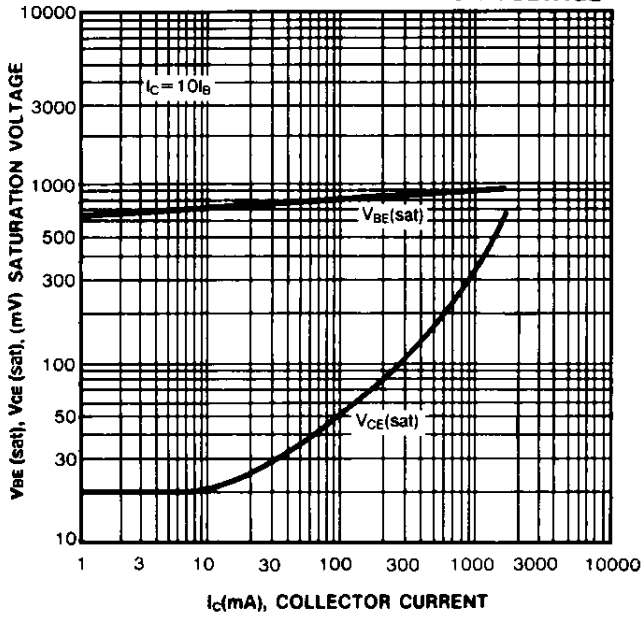
STATIC CHARACTERISTIC



DC CURRENT GAIN



**BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE**



CURRENT GAIN-BANDWIDTH PRODUCT

