

# Transistors

## C8050

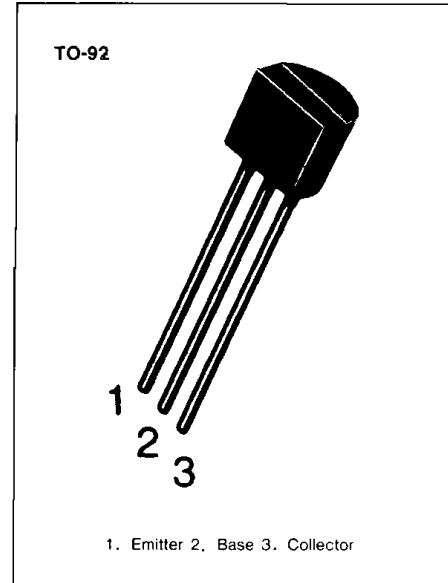


### 2W OUTPUT AMPLIFIER OF PORTABLE RADIOS IN CLASS B PUSH-PULL OPERATION.

- Complimentary to SS8550
- Collector Current  $I_C = 1.5A$
- Collector Dissipation  $P_C = 2W$  ( $T_C = 25^\circ C$ )

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

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CEO}$	25	V
Emitter-Base Voltage	$V_{EBO}$	6	V
Collector Current	$I_C$	1.5	A
Collector Dissipation	$P_C$	1	W
Junction Temperature	$T_J$	150	$^\circ C$
Storage Temperature	$T_{stg}$	$-65 \sim 150$	$^\circ C$



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

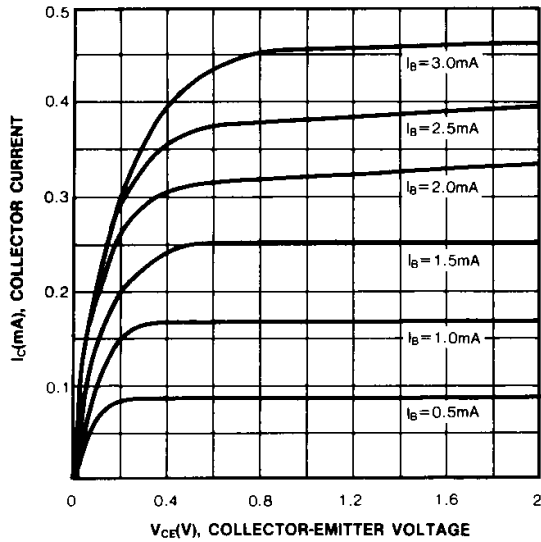
Characteristic	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-Base Breakdown Voltage	$BV_{CBO}$	$I_C = 100\mu A, I_E = 0$	40			V
Collector-Emitter Breakdown Voltage	$BV_{CEO}$	$I_C = 2mA, I_B = 0$	25			V
Emitter-Base Breakdown Voltage	$BV_{EBO}$	$I_E = 100\mu A, I_C = 0$	6			V
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 35V, I_E = 0$			100	nA
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 6V, I_C = 0$			100	nA
DC Current Gain	$h_{FE1}$	$V_{CE} = 1V, I_C = 5mA$	45	135		
	$h_{FE2}$	$V_{CE} = 1V, I_C = 100mA$	85	160	300	
	$h_{FE3}$	$V_{CE} = 1V, I_C = 800mA$	40	110		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 800mA, I_B = 80mA$		0.28	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = 800mA, I_B = 80mA$		0.98	1.2	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 1V, I_C = 10mA$		0.66	1	V
Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0$ $f = 1MHz$		9.0		pF
Current Gain-Bandwidth Product	$f_T$	$V_{CE} = 10V, I_C = 50mA$	100	190		MHz

### $h_{FE}$ (2) CLASSIFICATION

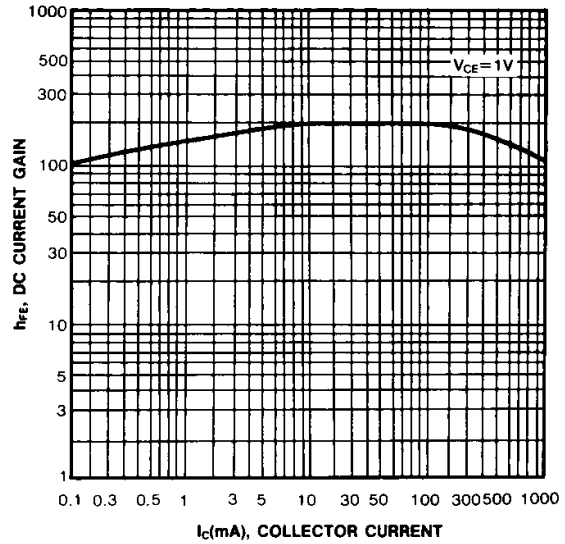
Classification	B	C	D
$h_{FE}$ (2)	85-160	120-200	160-300



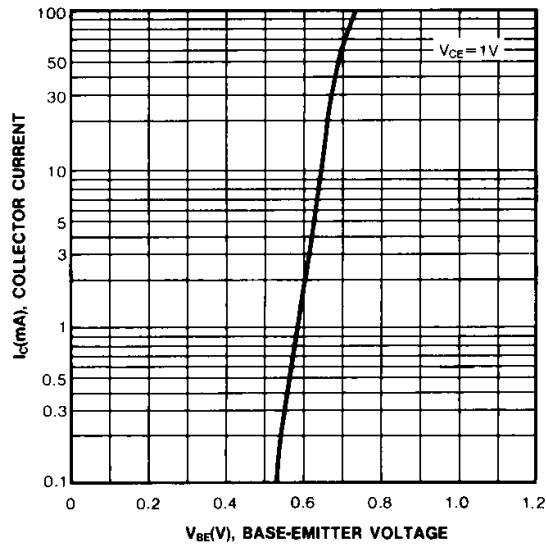
STATIC CHARACTERISTIC



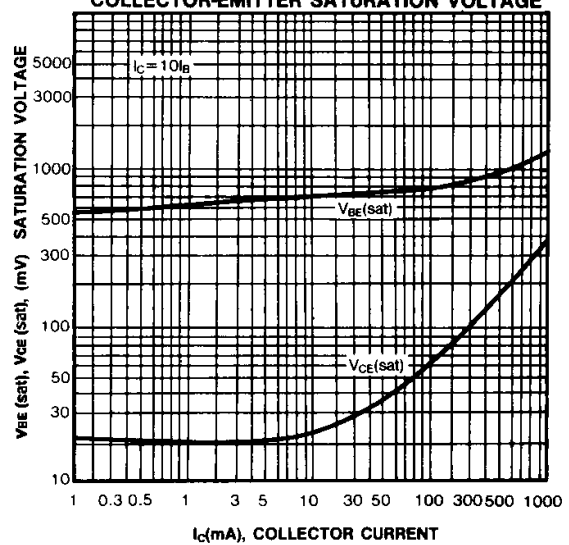
DC CURRENT GAIN



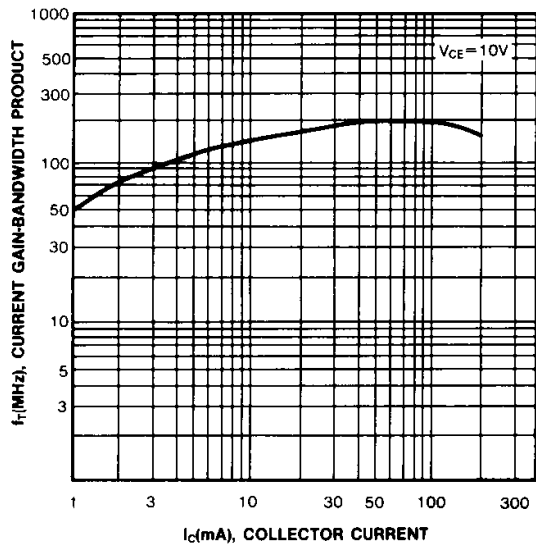
BASE-EMITTER ON VOLTAGE



BASE-EMITTER SATURATION VOLTAGE  
COLLECTOR-EMITTER SATURATION VOLTAGE



CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR OUTPUT CAPACITANCE

