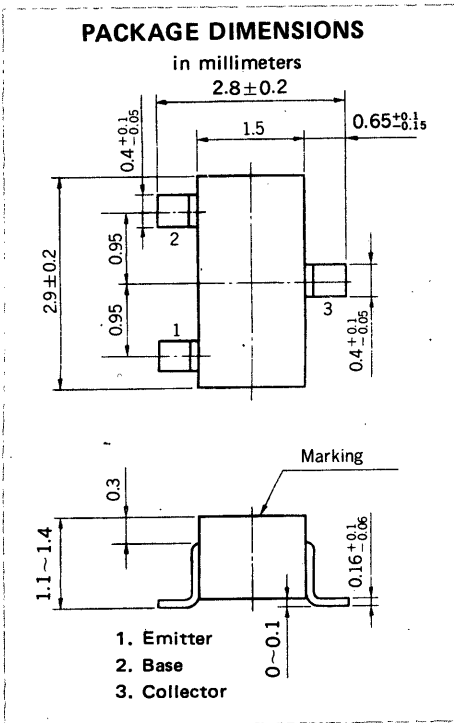


# SILICON TRANSISTORS 2SB736, 2SB736A

## AUDIO FREQUENCY POWER AMPLIFIER PNP SILICON EPITAXIAL TRANSISTOR MINI MOLD



### DESCRIPTION

The 2SB736, 2SB736A are designed for use in small type equipments especially recommended for hybrid integrated circuit and other applications.

### FEATURES

- Micro package.
- High DC current gain.  $h_{FE}$  : 200 TYP. ( $V_{CE} = -1.0$  V,  $I_C = -50$  mA)
- Complimentary to the NEC 2SD780, 2SD780A NPN Transistor.

### ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Current ( $T_a = 25^\circ\text{C}$ )	2SB736	2SB736A	
Collector to Base Voltage	$V_{CBO}$ -60	-80	V
Collector to Emitter Voltage	$V_{CEO}$ -60	-80	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	V
Collector Current (DC)	$I_C$	-300	mA
Maximum Power Dissipation			
Total Power Dissipation at $25^\circ\text{C}$ Ambient Temperature $P_T$		200	mW
Maximum Temperatures			
Storage Temperature Range	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Operating Junction Temperature	$T_j$	150	$^\circ\text{C}$

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

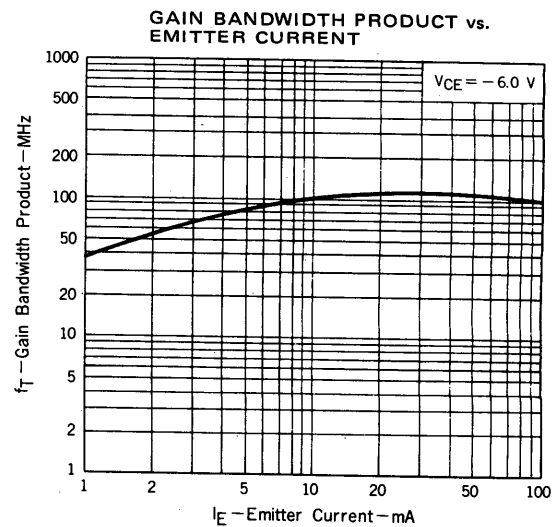
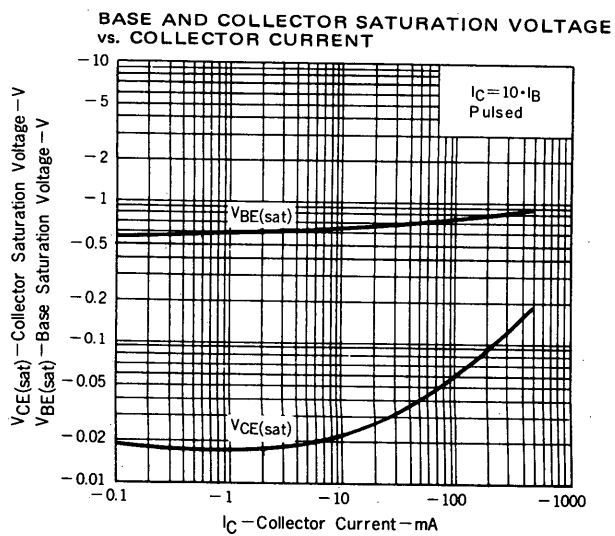
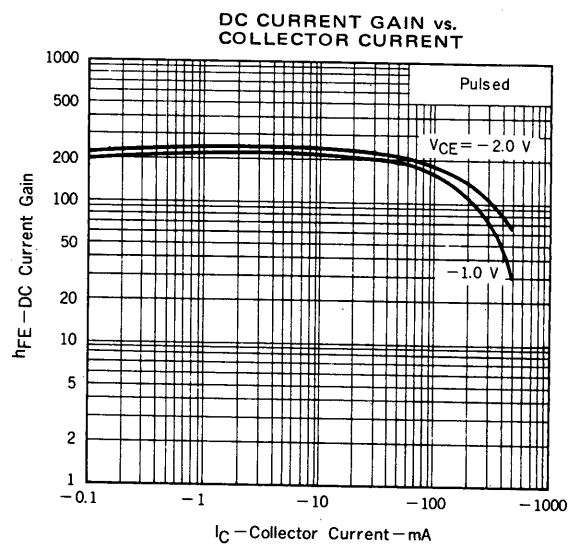
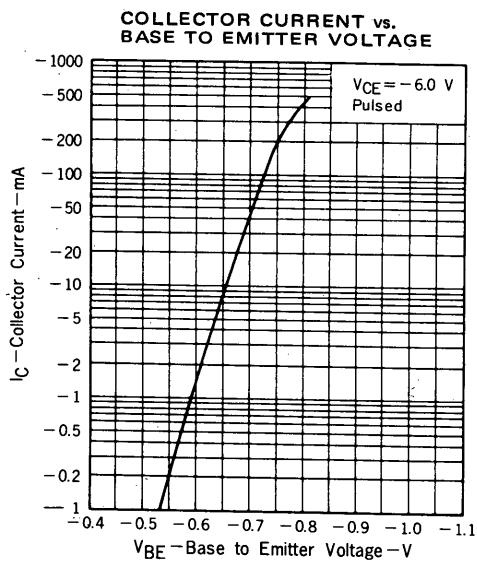
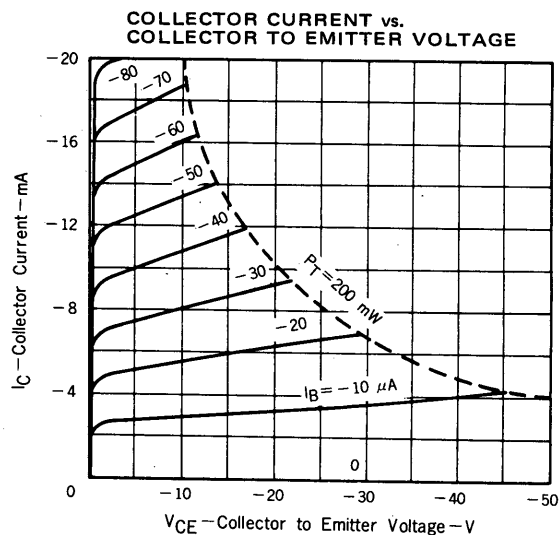
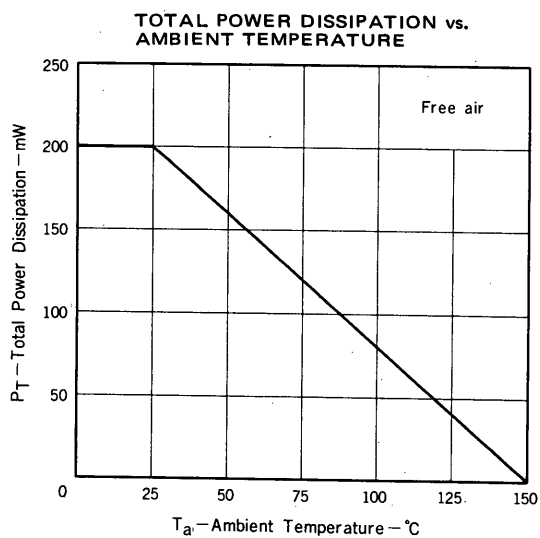
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector Cutoff Current	$I_{CBO}$			-100	nA	$V_{CB} = -50$ V, $I_E = 0$
Emitter Cutoff Current	$I_{EBO}$			-100	nA	$V_{EB} = -5.0$ V, $I_C = 0$
DC Current Gain	$h_{FE1}$	110	200	400		$V_{CE} = -1.0$ V, $I_C = -50$ mA *
DC Current Gain	$h_{FE2}$	30				$V_{CE} = -2.0$ V, $I_C = -300$ mA *
Base to Emitter Voltage	$V_{BE}$	-600	-660	-700	mV	$V_{CE} = -6.0$ V, $I_C = -10$ mA *
Collector Saturation Voltage	$V_{CE(sat)}$		-0.35	-0.6	V	$I_C = -300$ mA, $I_B = -30$ mA *
Output Capacitance	$C_{ob}$		13		pF	$V_{CB} = -6.0$ V, $I_E = 0$ , $f = 1.0$ MHz
Gain Bandwidth Product	$f_T$		100		MHz	$V_{CE} = -6.0$ V, $I_E = 10$ mA

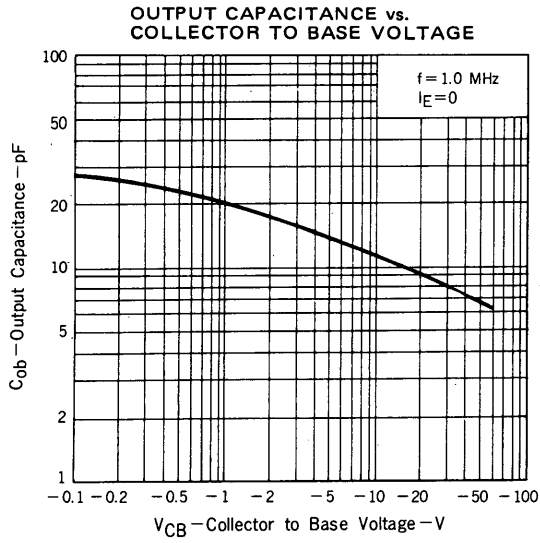
\* Pulsed PW  $\leq 350$   $\mu\text{s}$ , Duty Cycle  $\leq 2$  %

### $h_{FE1}$ Classification

Marking	2SB736	BW1	BW2	BW3	BW4	BW5
	2SB736A	B51	B52	B53	B54	B55
$h_{FE}$	110 to 180	135 to 220	170 to 270	200 to 320	250 to 400	

TYPICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )





---

**NEC Corporation**

INTERNATIONAL ELECTRON DEVICES DIV.  
SUMITOMO MITA Building, 37-8,  
Shiba Gochome, Minato-ku, Tokyo 108, Japan  
Tel: Tokyo 456-3111  
Telex Address: NECTOK J22686  
Cable Address: NEC TOKYO

TC-1262B  
SEPT.-10-84M  
Printed in Japan