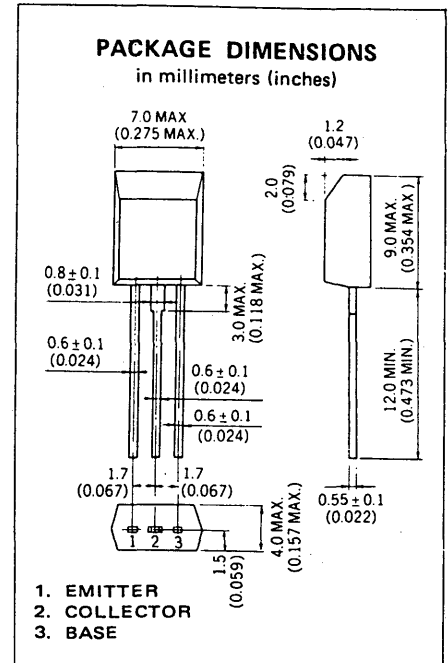


**DESCRIPTION** The 2SB734 is designed for use in driver and output stages of audio frequency amplifiers.

- FEATURES**
- High Total Power Dissipation  $P_T$ : 1.0 W ( $T_a=25^\circ\text{C}$ )
  - High Voltage  $V_{CE0}$ : -50 V MIN.
  - Complementary to the NEC 2SD774 NPN Transistor.

**ABSOLUTE MAXIMUM RATINGS**

- Maximum Temperatures
- Storage Temperature .....  $-55$  to  $+150^\circ\text{C}$
  - Junction Temperature .....  $150^\circ\text{C}$  Maximum
- Maximum Power Dissipation ( $T_a=25^\circ\text{C}$ )
- Total Power Dissipation ..... 1.0 W
- Maximum Voltages and Current ( $T_a=25^\circ\text{C}$ )
- $V_{CBO}$  Collector to Base Voltage ..... -60 V
  - $V_{CEO}$  Collector to Emitter Voltage ..... -50 V
  - $V_{EBO}$  Emitter to Base Voltage ..... -6.0 V
  - $I_C$  Collector Current ..... -1.0 A



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

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
$h_{FE1}$	DC Current Gain	135	250	600	—	$V_{CE}=-2.0\text{ V}$ , $I_C=-100\text{ mA}$
$h_{FE2}$	DC Current Gain	40			—	$V_{CE}=-1.0\text{ V}$ , $I_C=-1.0\text{ A}$
$f_T$	Gain Bandwidth Product	50	80		MHz	$V_{CE}=-2.0\text{ V}$ , $I_E=10\text{ mA}$
$C_{ob}$	Output Capacitance		23	50	pF	$V_{CB}=-10\text{ V}$ , $I_E=0$ , $f=1.0\text{ MHz}$
$I_{CBO}$	Collector Cutoff Current			-100	nA	$V_{CB}=-50\text{ V}$ , $I_E=0$
$I_{EBO}$	Emitter Cutoff Current			-100	nA	$V_{EB}=-6.0\text{ V}$ , $I_C=0$
$V_{BE}$	Base to Emitter Voltage	-0.55	-0.60	-0.65	V	$V_{CE}=-6.0\text{ V}$ , $I_C=-50\text{ mA}$
$V_{CE(sat)}$	Collector Saturation Voltage		-0.35	-0.60	V	$I_C=-1.0\text{ A}$ , $I_B=-50\text{ mA}$
$V_{BE(sat)}$	Base Saturation Voltage		-0.94	-1.20	V	$I_C=-1.0\text{ A}$ , $I_B=-50\text{ mA}$

**Classification of  $h_{FE1}$**

Rank	L <sub>2</sub>	K <sub>3</sub>	K <sub>4</sub>	U <sub>4</sub>	U <sub>5</sub>
Range	135 - 270	200 - 320	250 - 400	300 - 480	360 - 600

Test Conditions :  $V_{CE}=-2.0\text{ V}$ ,  $I_C=-100\text{ mA}$

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

