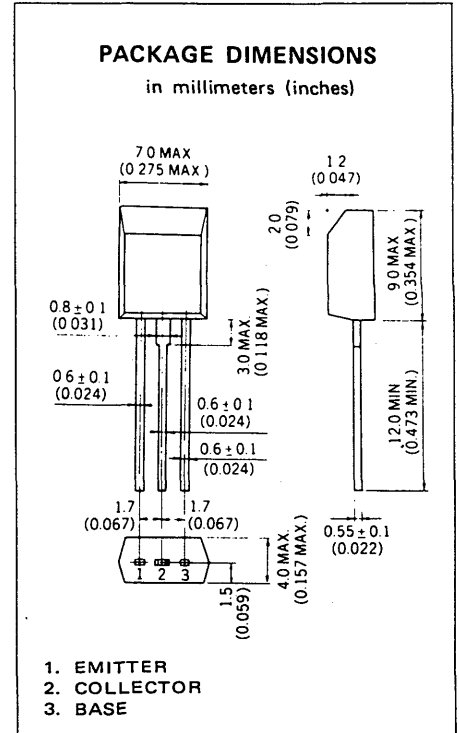


**DESCRIPTION** The 2SD571 is designed for use in driver and output stages of audio frequency amplifiers.

- FEATURES**
- High total power dissipation and high breakdown voltage:  
1.0 W at 25 °C Ambient temperature/ $V_{CE0} = 50$  V
  - Complementary to the NEC 2SB605 PNP transistor.

**ABSOLUTE MAXIMUM RATINGS**

- Maximum Temperatures
- Storage Temperature ..... -55 to +150 °C
  - Junction Temperature ..... +150 °C Maximum
- Maximum Power Dissipation ( $T_a = 25$  °C)
- Total Power Dissipation ..... 1.0 W
- Thermal Resistance (Junction to Ambient) . . 125 °C/W
- Maximum Voltages and Currents ( $T_a = 25$  °C)
- $V_{CBO}$  Collector to Base Voltage ..... 60 V
  - $V_{CEO}$  Collector to Emitter Voltage ..... 50 V
  - $V_{EBO}$  Emitter to Base Voltage ..... 5.0 V
  - $I_C$  Collector Current ..... 0.7 A
  - $I_B$  Base Current ..... 0.1 A



**ELECTRICAL CHARACTERISTICS ( $T_a = 25$  °C)**

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
$h_{FE1}$	DC Current Gain	90	200	400	—	$V_{CE}=1.0$ V, $I_C=0.1$ A
$h_{FE2}$	DC Current Gain	50	150		—	$V_{CE}=1.0$ V, $I_C=0.5$ A
$f_T$	Gain Bandwidth Product		110		MHz	$V_{CE}=6.0$ V, $I_E=10$ mA
$C_{ob}$	Output Capacitance		13		pF	$V_{CB}=6.0$ V, $I_E=0$ , $f=1.0$ MHz
$I_{CBO}$	Collector Cutoff Current			100	nA	$V_{CB}=60$ V, $I_E=0$
$I_{EBO}$	Emitter Cutoff Current			100	nA	$V_{EB}=5.0$ V, $I_C=0$
$V_{BE}$	Base to Emitter Voltage	600	635	700	mV	$V_{CE}=6.0$ V, $I_C=10$ mA
$V_{CE(sat)}$	Collector Saturation Voltage		0.12	0.35	V	$I_C=0.5$ A, $I_B=0.05$ A
$V_{BE(sat)}$	Base Saturation Voltage		0.90	1.2	V	$I_C=0.5$ A, $I_B=0.05$ A

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

Rank	M	L	K
Range	90 - 180	135 - 270	200 - 400

$h_{FE1}$  Test Conditions:  $V_{CE}=1.0$  V,  $I_C=0.1$  A

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

