

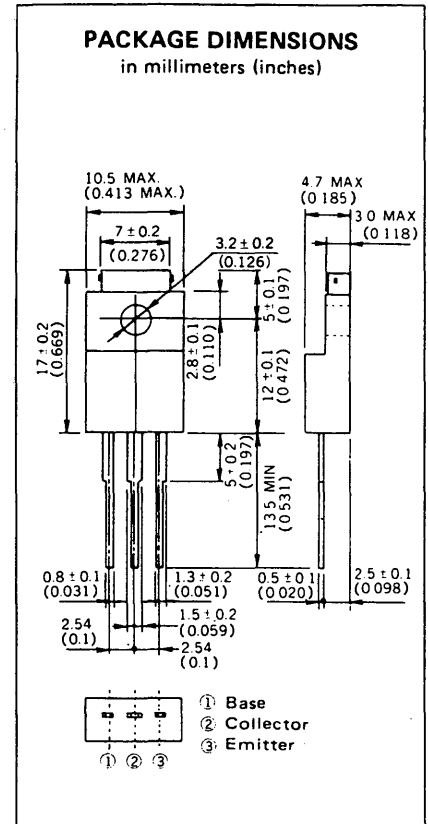
**DESCRIPTION** The 2SD1585 is an NPN general purpose transistor designed for use in audio frequency power amplifier.

- FEATURES**
- Easy mount by eliminating Sheet and Bushing.
  - Complementary to the 2SB1094.

**ABSOLUTE MAXIMUM RATINGS**

<b>Maximum Temperatures</b>	
Storage Temperature	-55 to +150 °C
Junction Temperature	150 °C Maximum
<b>Maximum Power Dissipations</b>	
Total Power Dissipation (T <sub>a</sub> = 25 °C)	2.0 W
Total Power Dissipation (T <sub>c</sub> = 25 °C)	15 W
<b>Maximum Voltages and Currents (T<sub>a</sub> = 25 °C)</b>	
V <sub>CB0</sub> Collector to Base Voltage	60 V
V <sub>CEO</sub> Collector to Emitter Voltage	60 V
V <sub>EBO</sub> Emitter to Base Voltage	7.0 V
I <sub>C(DC)</sub> Collector Current (DC)	3.0 A
I <sub>C(pulse)</sub> Collector Current (Pulse)*	5.0 A
I <sub>B(pulse)</sub> Base Current (DC)	0.6 A

\* PW ≤ 10 ms, Duty Cycle ≤ 50 %



**ELECTRICAL CHARACTERISTICS (T<sub>a</sub> = 25 °C)**

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h <sub>FE1</sub> **	DC Current Gain	20				V <sub>CE</sub> = 5.0 V, I <sub>C</sub> = 50 mA
h <sub>FE2</sub> **	DC Current Gain	40		200		V <sub>CE</sub> = 5.0 V, I <sub>C</sub> = 0.5 A
f <sub>T</sub>	Gain Bandwidth Product		16		MHz	V <sub>CE</sub> = 5.0 V, I <sub>C</sub> = 0.1 A
C <sub>ob</sub>	Output Capacitance		48		pF	V <sub>CB</sub> = 10 V, I <sub>E</sub> = 0, f = 1.0 MHz
I <sub>CB0</sub>	Collector Cutoff Current			10	μA	V <sub>CB</sub> = 60 V, I <sub>E</sub> = 0
I <sub>EBO</sub>	Emitter Cutoff Current			10	μA	V <sub>EB</sub> = 7.0 V, I <sub>C</sub> = 0
V <sub>CE(sat)</sub> **	Collector Saturation Voltage			1.5	V	I <sub>C</sub> = 2.0 A, I <sub>B</sub> = 0.2 A
V <sub>BE(sat)</sub> **	Base Saturation Voltage			2.0	V	I <sub>C</sub> = 2.0 A, I <sub>B</sub> = 0.2 A

\*\*Pulsed: PW ≤ 350 μs, Duty Cycle ≤ 2 %

**Classification of h<sub>FE2</sub>**

Rank	M	L	K
Range	40 to 80	60 to 120	100 to 200

Test Conditions: V<sub>CE</sub> = 5.0 V, I<sub>C</sub> = 0.5 A

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

