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NPN SILICON POWER TRANSISTOR

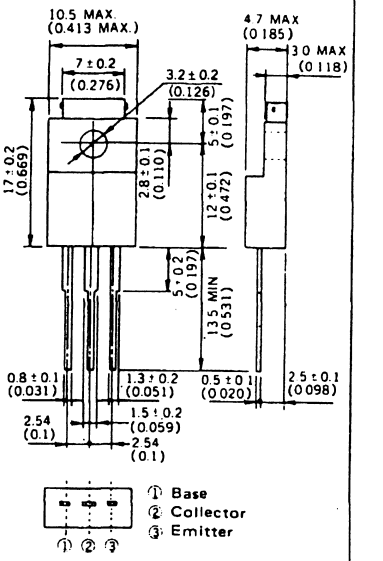
2SD1585

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.

PACKAGE DIMENSIONS
in millimeters (inches)



ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature	−55 to +150	°C
Junction Temperature	150	°C Maximum

Maximum Power Dissipations

Total Power Dissipation (T_a = 25 °C)	2.0	W
Total Power Dissipation (T_C = 25 °C)	15	W

Maximum Voltages and Currents (T_a = 25 °C)

V_{CBO}	Collector to Base Voltage	60	V
V_{CEO}	Collector to Emitter Voltage	60	V
V_{EBO}	Emitter to Base Voltage	7.0	V
$I_{C(DC)}$	Collector Current (DC)	3.0	A
$I_{C(pulse)}$	Collector Current (Pulse)*	5.0	A
$I_{B(pulse)}$	Base Current (DC)	0.6	A

* PW ≦ 10 ms, Duty Cycle ≦ 50 %

ELECTRICAL CHARACTERISTICS (T_a = 25 °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE1}**	DC Current Gain	20				V_{CE} = 5.0 V, I_C = 50 mA
h_{FE2}**	DC Current Gain	40		200		V_{CE} = 5.0 V, I_C = 0.5 A
f_T	Gain Bandwidth Product		16		MHz	V_{CE} = 5.0 V, I_C = 0.1 A
C_{ob}	Output Capacitance		48		pF	V_{CB} = 10 V, I_E = 0, f = 1.0 MHz
I_{CBO}	Collector Cutoff Current			10	μA	V_{CB} = 60 V, I_E = 0
I_{EBO}	Emitter Cutoff Current			10	μA	V_{EB} = 7.0 V, I_C = 0
$V_{CE(sat)}$**	Collector Saturation Voltage			1.5	V	I_C = 2.0 A, I_B = 0.2 A
$V_{BE(sat)}$**	Base Saturation Voltage			2.0	V	I_C = 2.0 A, I_B = 0.2 A

**Pulsed: PW ≦ 350 μs, Duty Cycle ≦ 2 %

Classification of h_{FE2}

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

Test Conditions: V_{CE} = 5.0 V, I_C = 0.5 A