

NPN SILICON POWER TRANSISTOR 2SD1585

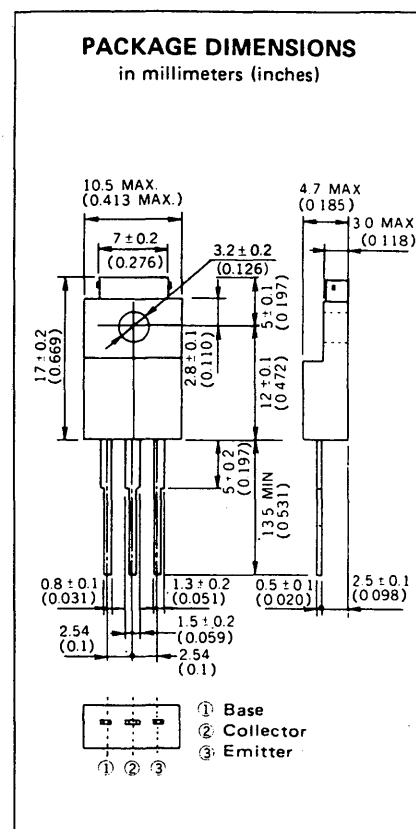
DESCRIPTION The 2SD1585 is an NPN general purpose transistor designed for use in audio frequency power amplifier.

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

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures			
Storage Temperature		-55 to +150 °C	
Junction Temperature		150 °C Maximum	
Maximum Power Dissipations			
Total Power Dissipation ($T_a = 25^\circ\text{C}$)		2.0	W
Total Power Dissipation ($T_c = 25^\circ\text{C}$)		15	W
Maximum Voltages and Currents ($T_a = 25^\circ\text{C}$)			
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

* $PW \leq 10$ ms, Duty Cycle ≤ 50 %



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

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: $PW \leq 350$ 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

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

