

Silicon NPN Power Transistors

2SD1761

DESCRIPTION

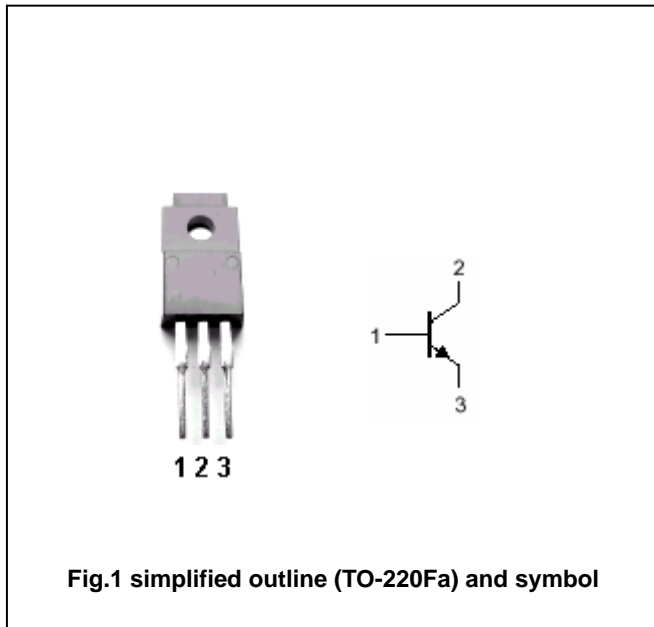
- With TO-220Fa package
- Low collector saturation voltage
- Complement to type 2SB1187
- Wide safe operating area

APPLICATIONS

- For low frequency power amplifier applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	80	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	60	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current (DC)		3	A
I <sub>CM</sub>	Collector current-Peak		6	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	30	W
		T <sub>a</sub> =25°C	2	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

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## CHARACTERISTICS

 $T_j=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=1\text{mA}$ , $I_B=0$	60			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=50\ \mu\text{A}$ , $I_E=0$	80			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=50\ \mu\text{A}$ , $I_C=0$	5			V
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C=2\text{A}$ $I_B=0.2\text{A}$			1.0	V
$V_{BEsat}$	Base-emitter saturation voltage	$I_C=2\text{A}$ $I_B=0.2\text{A}$			1.5	V
$I_{CBO}$	Collector cut-off current	$V_{CB}=60\text{V}$ $I_E=0$			10	$\mu\text{A}$
$I_{EBO}$	Emitter cut-off current	$V_{EB}=4\text{V}$ ; $I_C=0$			10	$\mu\text{A}$
$h_{FE}$	DC current gain	$I_C=0.5\text{A}$ ; $V_{CE}=5\text{V}$	60		320	
$f_T$	Transition frequency	$I_C=0.5\text{A}$ ; $V_{CE}=5\text{V}$		8		MHz
$C_{ob}$	Output capacitance	$I_E=0$ ; $V_{CB}=10\text{V}$ , $f=1\text{MHz}$		90		pF

◆  $h_{FE}$  Classifications

D	E	F
60-120	100-200	160-320

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PACKAGE OUTLINE

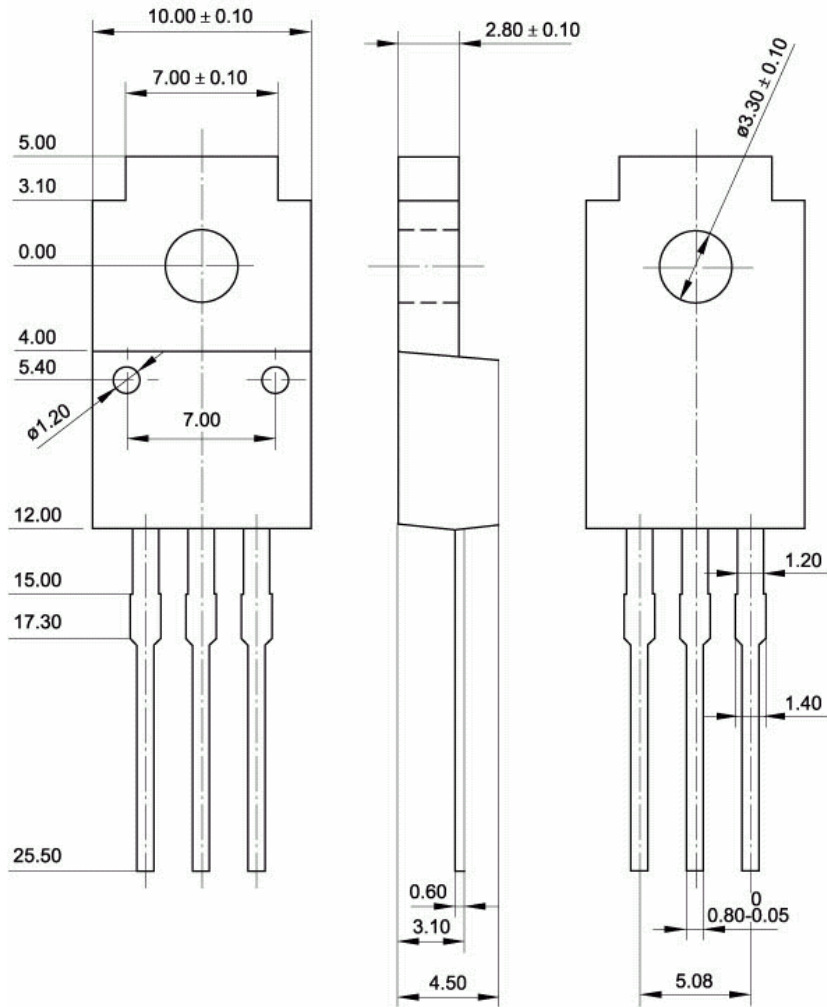


Fig.2 Outline dimensions (unindicated tolerance:  $\pm 0.15$  mm)