

Silicon NPN Power Transistors

BD953

DESCRIPTION

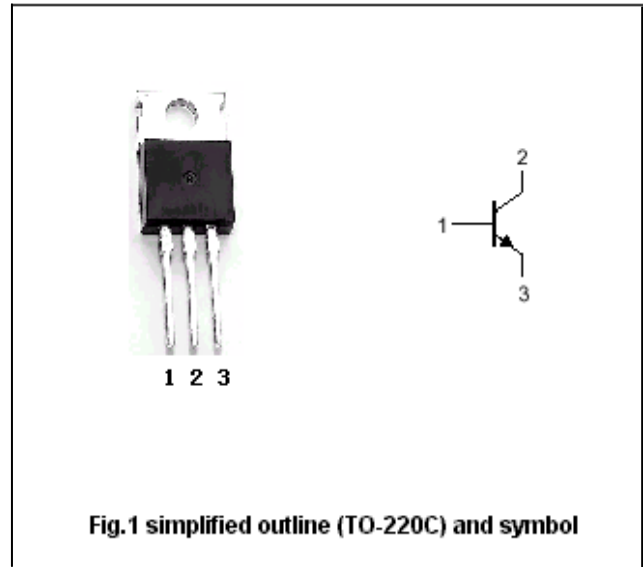
- With TO-220C package
- Low collector saturation voltage
- High current capability

APPLICATIONS

- For medium power linear and switching applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector; connected to mounting base
3	Emitter

Absolute maximum ratings($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	100	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		5	A
P_C	Collector dissipation	$T_C=25^\circ\text{C}$	40	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-50~150	$^\circ\text{C}$

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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	$I_C=10\text{mA}; I_B=0$	100			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1\text{mA}; I_C=0$	7			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	$V_{CB}=100\text{V}; I_E=0$			50	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=7\text{V}; I_C=0$			50	μA
h_{FE-1}	DC current gain	$I_C=0.5\text{A}; V_{CE}=4\text{V}$	40			
h_{FE-2}	DC current gain	$I_C=2\text{A}; V_{CE}=4\text{V}$	20			
f_T	Transition frequency	$I_C=0.5\text{A}; V_{CE}=4\text{V}$	3			MHz

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PACKAGE OUTLINE

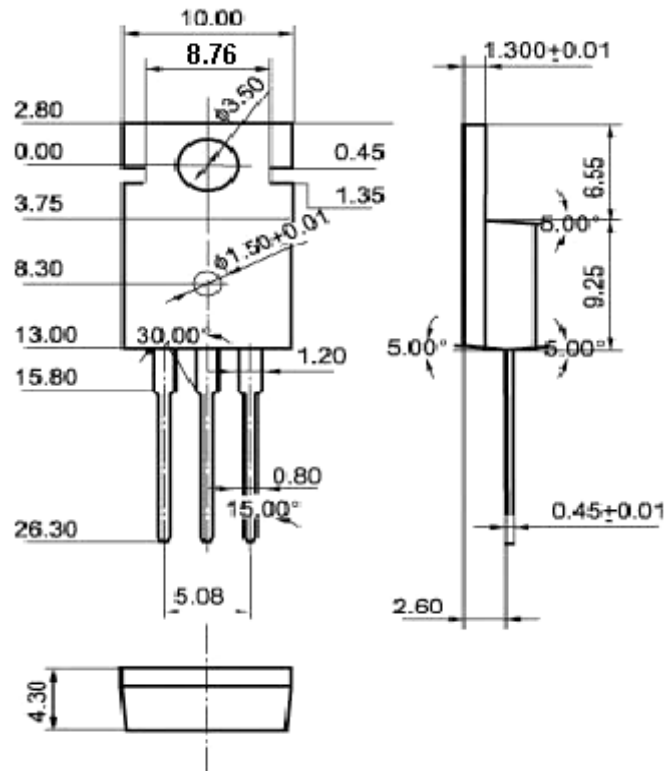


Fig.2 Outline dimensions (unindicated tolerance: ±0.10mm)