

Silicon NPN Power Transistors

2SD1197

DESCRIPTION

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- With TO-3PN package
- High DC current gain.
- Large current capacity and wide ASO.
- Low saturation voltage
- DARLINGTON
- Complement to type 2SB887

APPLICATIONS

- Motor drivers, printer hammer drivers, relay drivers, voltage regulator control.

PINNING

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

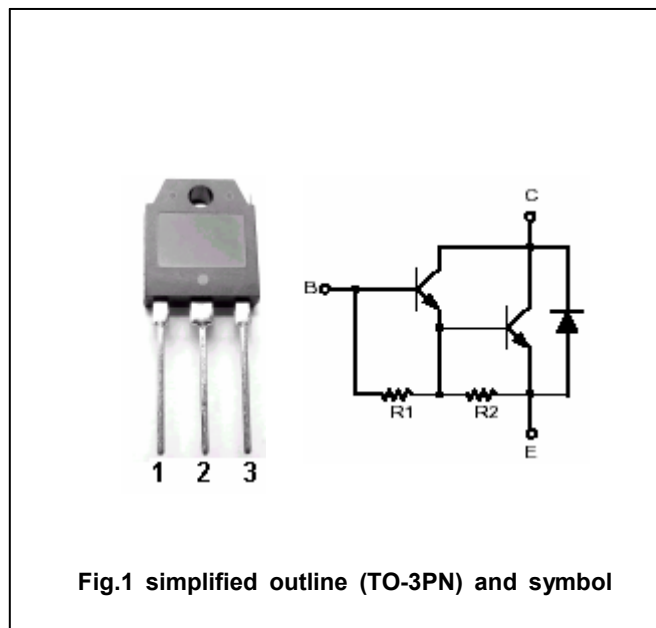


Fig.1 simplified outline (TO-3PN) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	110	V
V_{CEO}	Collector-emitter voltage	Open base	100	V
V_{EBO}	Emitter-base voltage	Open collector	6	V
I_C	Collector current (DC)		10	A
I_{CP}	Collector current (Pulse)		15	A
P_C	Collector power dissipation	$T_c=25^\circ\text{C}$	70	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C = 50\text{mA}$; $R_{BE} = \infty$	100			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C = 5\text{mA}$; $I_E = 0$	110			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C = 5\text{A}$; $I_B = 10\text{mA}$		0.9	1.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C = 5\text{A}$; $I_B = 10\text{mA}$			2.0	V
I_{CBO}	Collector cut-off current	$V_{CB} = 80\text{V}$; $I_E = 0$			0.1	mA
I_{EBO}	Emitter cut-off current	$V_{EB} = 5\text{V}$; $I_C = 0$			3.0	mA
h_{FE}	DC current gain	$I_C = 5\text{A}$; $V_{CE} = 3\text{V}$	1500	4000		
f_T	Transition frequency	$I_C = 5\text{A}$; $V_{CE} = 5\text{V}$		20		MHz

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PACKAGE OUTLINE

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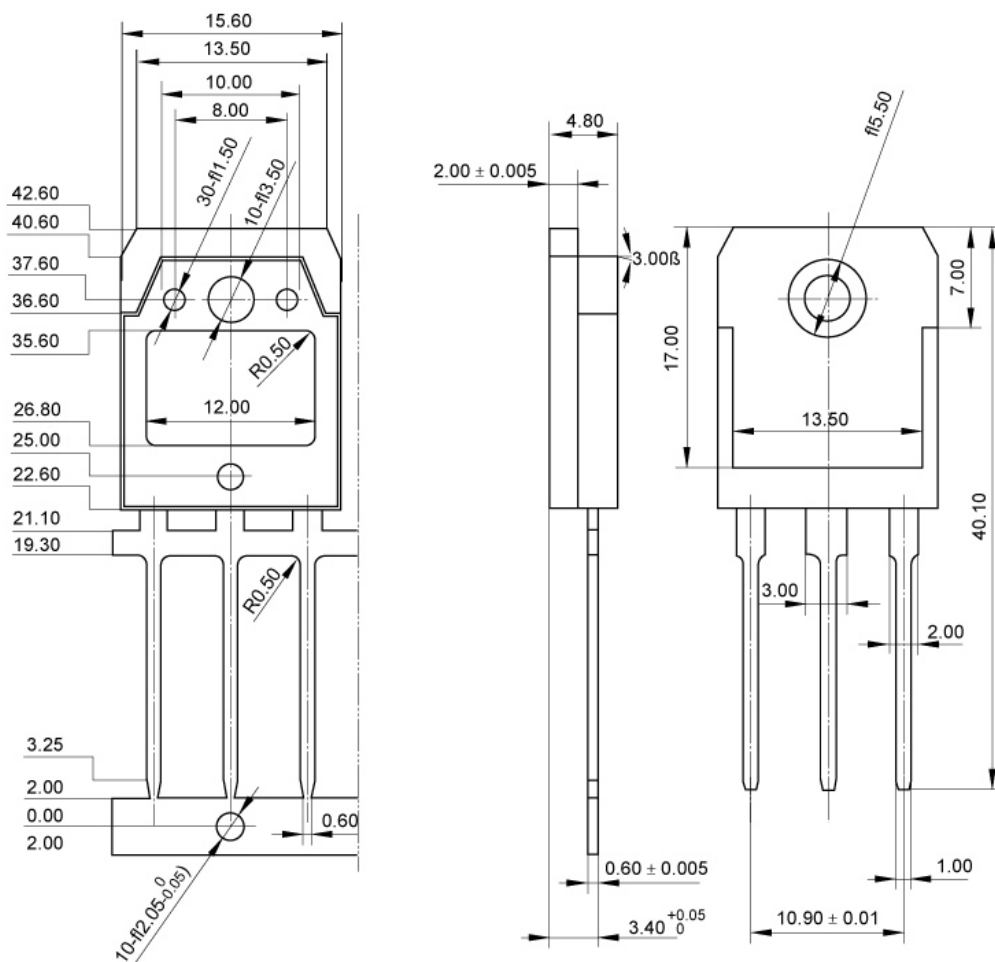


Fig.2 outline dimensions