

Silicon NPN Power Transistors

2SD1197

DESCRIPTION

- 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

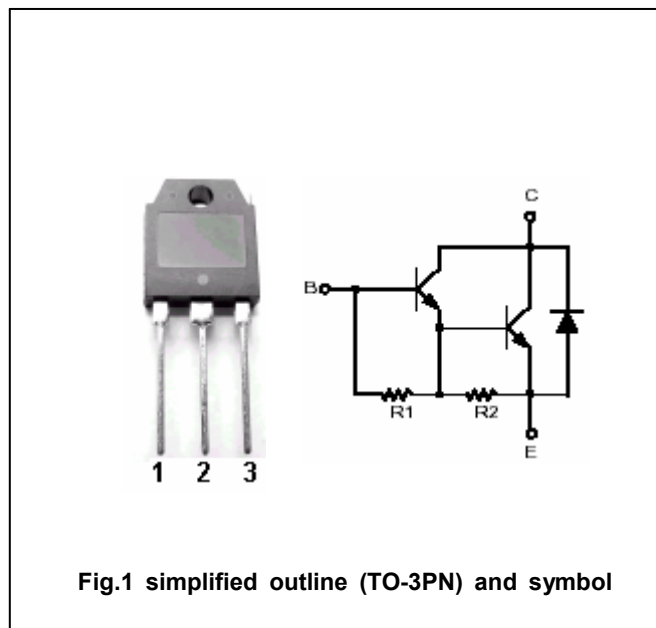


Fig.1 simplified outline (TO-3PN) and symbol

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

Tj=25°C unless otherwise specified

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

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[illegible]