

Silicon PNP Darlington Power Transistors

2SB1647

DESCRIPTION

- With TO-3PN package
- Complement to type 2SD2560

APPLICATIONS

- Audio ,regulator and general purpose

PINNING

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

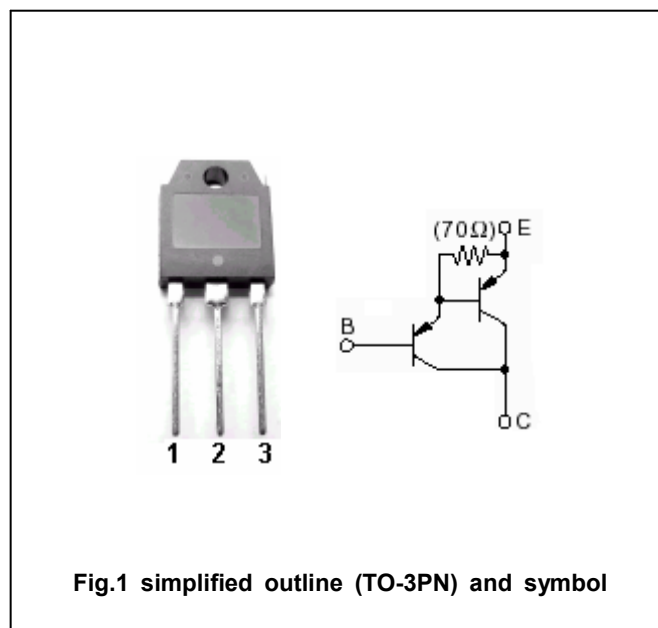


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings($T_a = \square$)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-150	V
V_{CEO}	Collector-emitter voltage	Open base	-150	V
V_{EBO}	Emitter-base voltage	Open collector	-5	V
I_C	Collector current		-15	A
I_B	Base current		-1	A
P_C	Collector power dissipation	$T_C = 25\square$	130	W
T_j	Junction temperature		150	$\square$
T_{stg}	Storage temperature		-55~150	$\square$

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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	$I_C=-30mA$; $I_B=0$	-150			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=-10A$; $I_B=-10mA$			-2.5	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=-10A$; $I_B=-10mA$			-3.0	V
I_{CBO}	Collector cut-off current	$V_{CB}=-150V$; $I_E=0$			-100	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=-5V$; $I_C=0$			-100	μA
h_{FE}	DC current gain	$I_C=-10A$; $V_{CE}=-4V$	5000			
C_{ob}	Output capacitance	$I_E=0$; $V_{CB}=-10V$; $f=1MHz$		320		pF
f_T	Transition frequency	$I_C=-2A$; $V_{CE}=-12V$		45		MHz

Switching times

t_{on}	Turn-on time	$I_C=-10A$; $R_L=4\Omega$ $I_{B1}=-I_{B2}=-10mA$ $V_{CC}=-40V$		0.7		μs
t_s	Storage time			1.6		μs
t_f	Fall time			1.1		μs

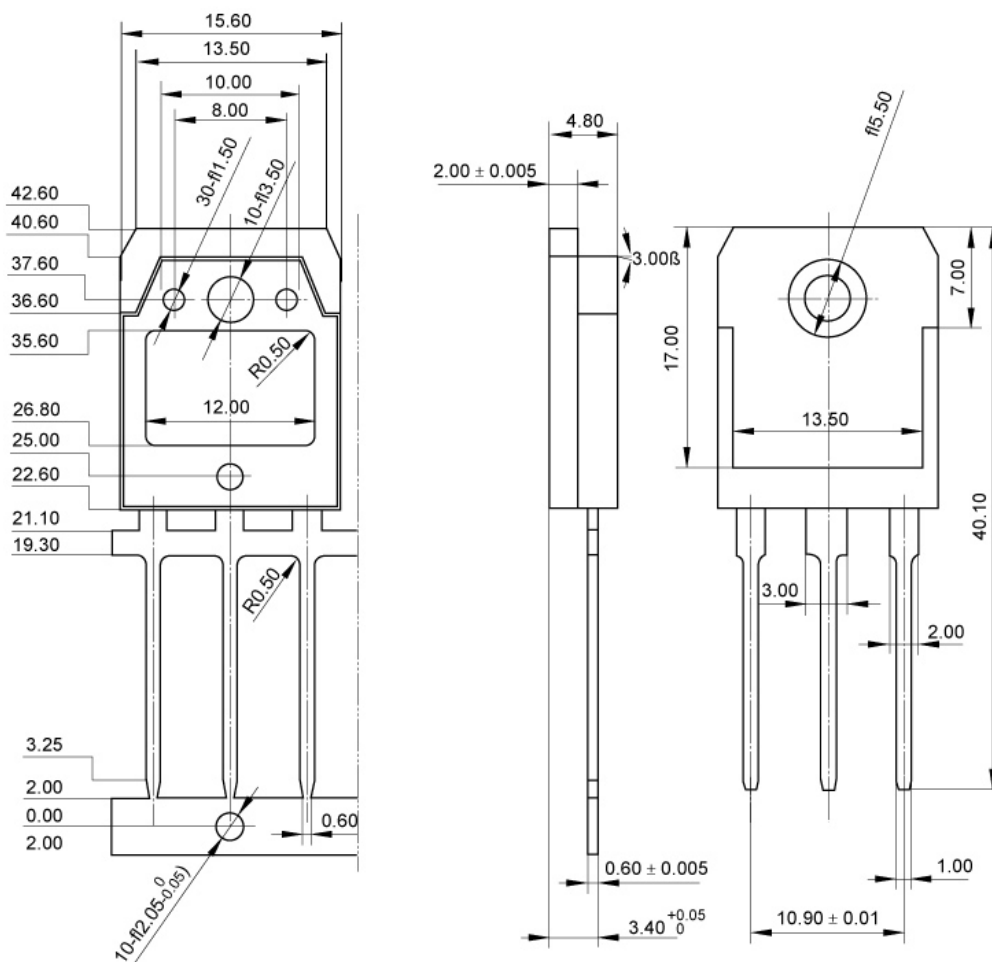
◆ h_{FE} Classifications

O	P	Y
5000-12000	6500-20000	15000-30000

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PACKAGE OUTLINE

Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)