

Silicon PNP Darlington Power Transistors

2SB1647

DESCRIPTION

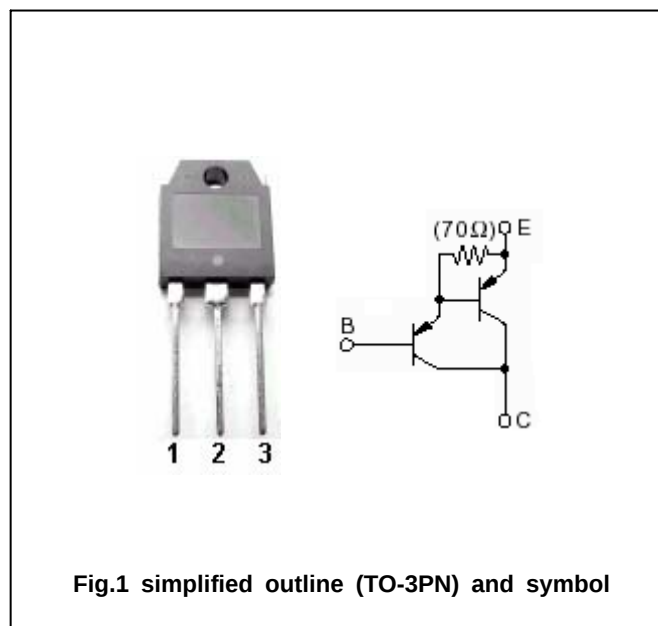
- With TO-3PN package
- Complement to type 2SD2560

APPLICATIONS

- Audio ,regulator and general purpose

PINNING

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

Absolute maximum ratings($T_a =$)

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	$T_C = 25$	130	W
T_j	Junction temperature		150	
T_{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 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	μ A
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-100	μ A
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 =4Ω I _{B1} =- I _{B2} =-10mA V _{CC} =-40V		0.7		μ s
t _s	Storage time			1.6		μ s
t _f	Fall time			1.1		μ s

◆ h_{FE} Classifications

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

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Technical drawing of a mechanical part showing front, side, and top views with dimensions.

Front View Dimensions:

- Overall width: 15.60
- Inner width: 13.50
- Top section width: 10.00
- Top section inner width: 8.00
- Top section fillet: $R0.50$
- Top section hole diameter: $10-83.50$
- Top section hole diameter: $30-81.50$
- Top section hole diameter: $10-83.50$
- Top section hole diameter: $R0.50$
- Top section hole diameter: 12.00
- Top section hole diameter: $R0.50$
- Top section hole diameter: $10-82 (35-0.05)$
- Top section hole diameter: 0.60
- Top section hole diameter: 2.00
- Top section hole diameter: 0.00
- Top section hole diameter: 2.00
- Top section hole diameter: 3.25
- Top section hole diameter: 21.10
- Top section hole diameter: 19.30
- Top section hole diameter: 22.60
- Top section hole diameter: 25.00
- Top section hole diameter: 26.80
- Top section hole diameter: 35.60
- Top section hole diameter: 36.60
- Top section hole diameter: 37.60
- Top section hole diameter: 40.60
- Top section hole diameter: 42.60

Side View Dimensions:

- Overall height: 40.10
- Top section height: 7.00
- Top section width: 13.50
- Top section hole diameter: $R0.50$
- Top section hole diameter: 3.00
- Top section hole diameter: 2.00
- Top section hole diameter: 1.00
- Top section hole diameter: 10.90 ± 0.01
- Top section hole diameter: $3.40^{+0.05}_0$
- Top section hole diameter: 0.60 ± 0.005
- Top section hole diameter: 2.00 ± 0.005
- Top section hole diameter: 4.80

Top View Dimensions:

- Overall width: 15.60
- Inner width: 13.50
- Top section width: 10.00
- Top section inner width: 8.00
- Top section fillet: $R0.50$
- Top section hole diameter: $10-83.50$
- Top section hole diameter: $30-81.50$
- Top section hole diameter: $10-83.50$
- Top section hole diameter: $R0.50$
- Top section hole diameter: 12.00
- Top section hole diameter: $R0.50$
- Top section hole diameter: $10-82 (35-0.05)$
- Top section hole diameter: 0.60
- Top section hole diameter: 2.00
- Top section hole diameter: 0.00
- Top section hole diameter: 2.00
- Top section hole diameter: 3.25
- Top section hole diameter: 21.10
- Top section hole diameter: 19.30
- Top section hole diameter: 22.60
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