

Silicon NPN Darlington Power Transistors

2SD2493

DESCRIPTION

- With TO-3PN package
- Complement to type 2SB1624

APPLICATIONS

- Audio ,series regulator and general purpose applications

PINNING

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

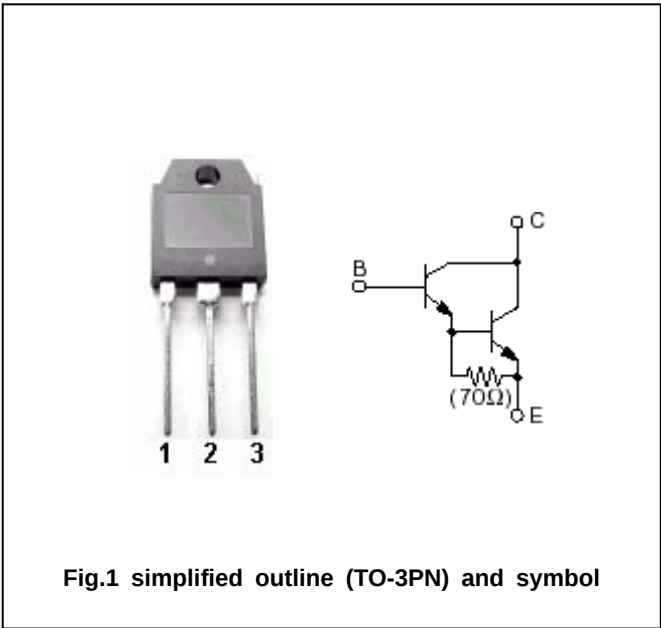


Fig.1 simplified outline (TO-3PN) and symbol

Absolute maximum ratings(Ta=)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	110	V
V_{CEO}	Collector-emitter voltage	Open base	110	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		6	A
I_B	Base current		1	A
P_C	Collector power dissipation	$T_C=25$	60	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	110			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5A ; I _B =5mA			2.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5A ; I _B =5mA			3.0	V
I _{CBO}	Collector cut-off current	V _{CB} =110V; 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 =5A ; V _{CE} =4V	5000			
C _{ob}	Output capacitance	I _E =0 ; V _{CB} =10V; f=1MHz		55		pF
f _T	Transition frequency	I _C =2A ; V _{CE} =12V		60		MHz

Switching times

t _{on}	Turn-on time	I _C =5A; R _L =6Ω I _{B1} =- I _{B2} =5mA V _{CC} =30V		0.8		μ s
t _s	Storage time			6.2		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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PACKAGE OUTLINE

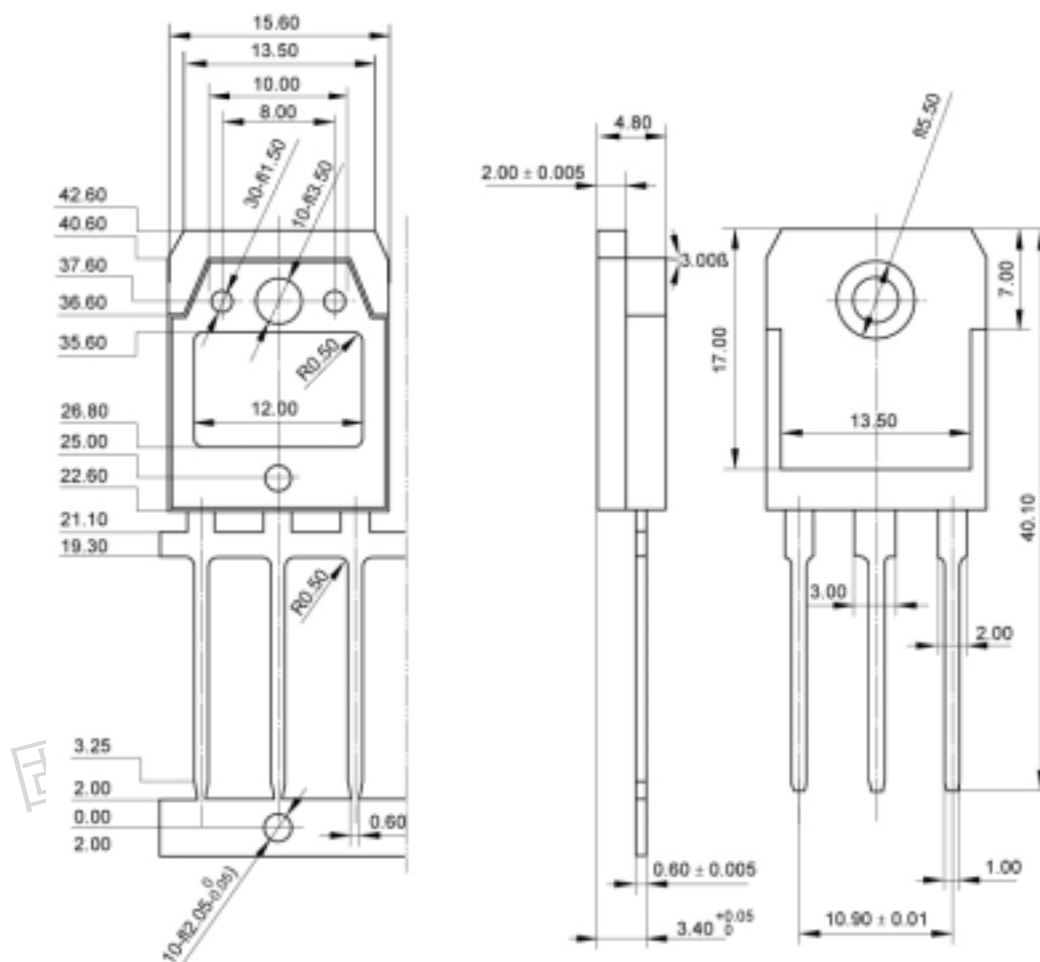


Fig.2 outline dimensions (unindicated tolerance: $\pm 0.1\text{mm}$)