

**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

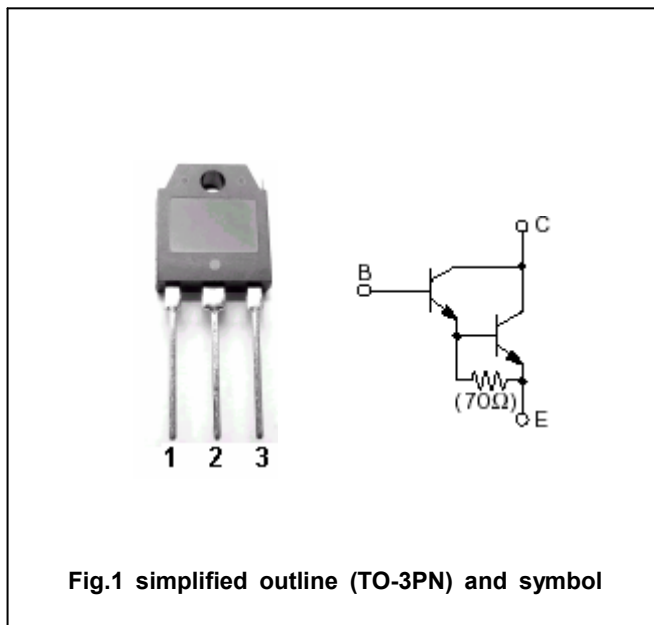


Fig.1 simplified outline (TO-3PN) and symbol

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	110	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	110	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		6	A
I <sub>B</sub>	Base current		1	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25□	60	W
T <sub>j</sub>	Junction temperature		150	□
T <sub>stg</sub>	Storage temperature		-55~150	□

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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	$I_C=30mA ; I_B=0$	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	$\mu A$
$I_{EBO}$	Emitter cut-off current	$V_{EB}=5V ; I_C=0$			100	$\mu A$
$h_{FE}$	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	$I_C=5A ; R_L=6\Omega$ $I_{B1}=-I_{B2}=5mA$ $V_{CC}=30V$		0.8		$\mu s$
$t_s$	Storage time			6.2		$\mu s$
$t_f$	Fall time			1.1		$\mu s$

◆  $h_{FE}$  Classifications

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

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PACKAGE OUTLINE

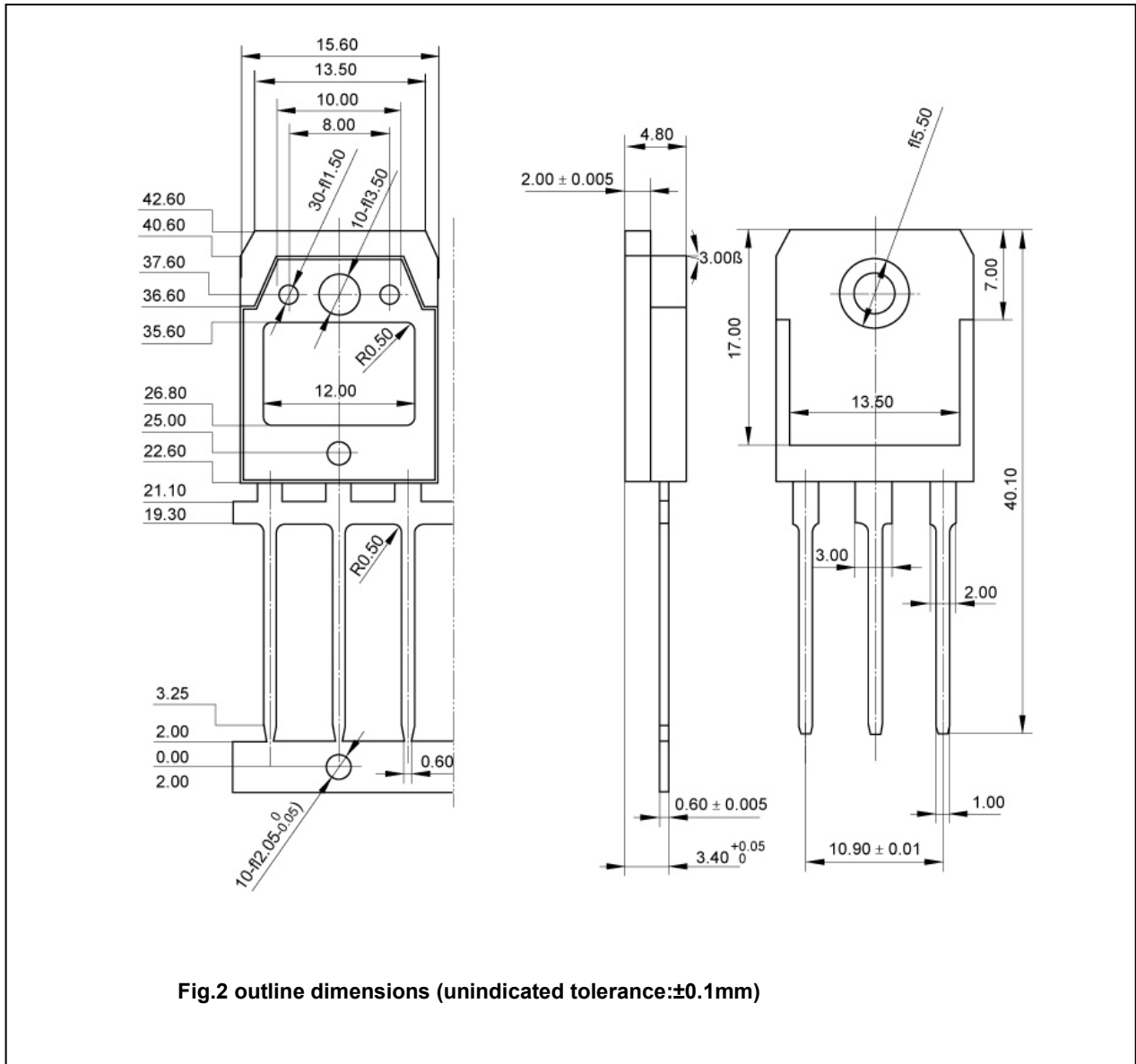


Fig.2 outline dimensions (unindicated tolerance:±0.1mm)