

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

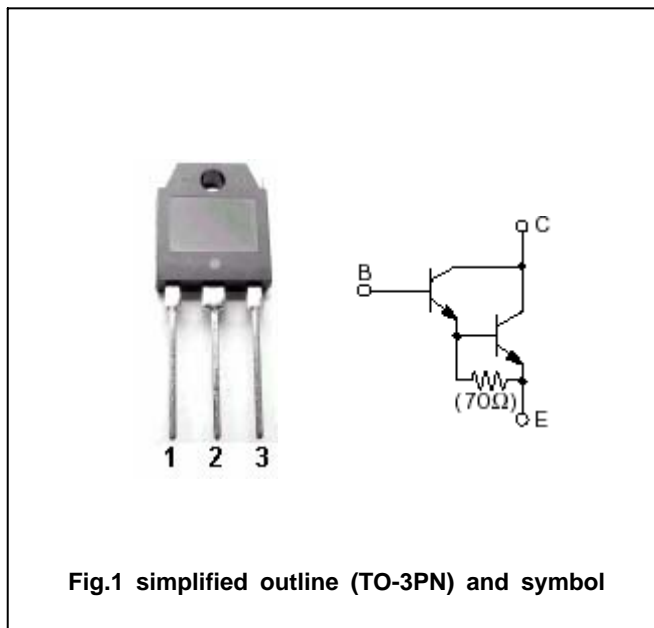


Fig.1 simplified outline (TO-3PN) and symbol

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**

Tj=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	$\mu A$
$I_{EBO}$	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

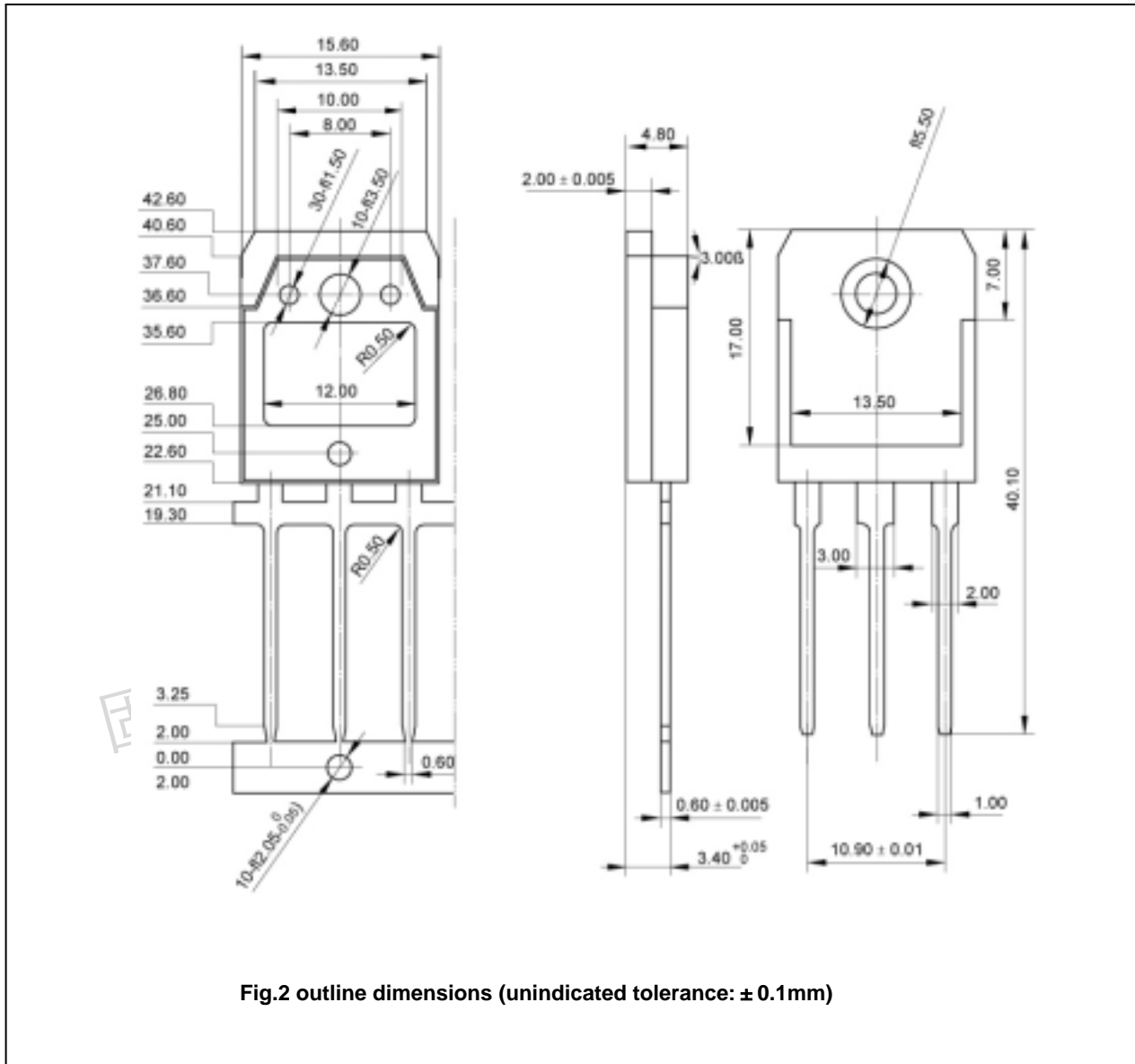


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1$ mm)