

Silicon NPN Darlington Power Transistors

2SD2493

DESCRIPTION

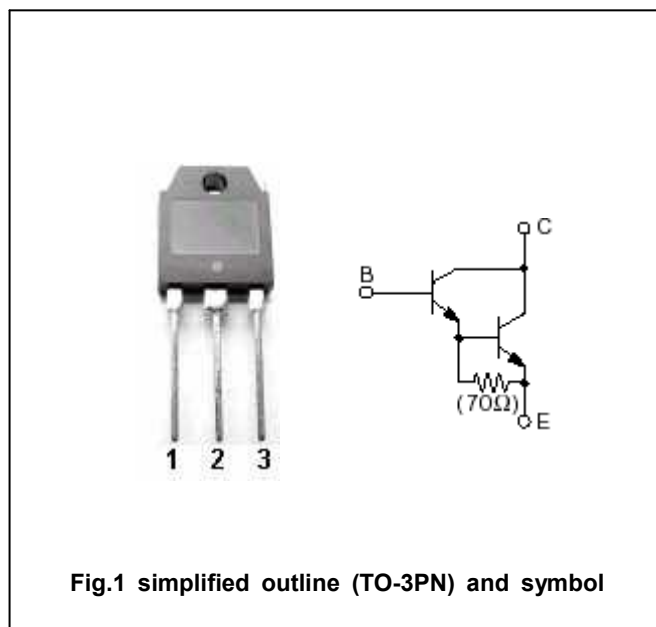
- With TO-3PN package
- Complement to type 2SB1624

APPLICATIONS

- Audio ,series regulator and general purpose applications

PINNING

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

Absolute maximum ratings($T_a =$)

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	μA
I_{EBO}	Emitter cut-off current	$V_{EB}=5V$; $I_C=0$			100	μA
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		μs
t_s	Storage time			6.2		μs
t_f	Fall time			1.1		μs

◆ h_{FE} Classifications

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

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

Front View Dimensions:

- Overall width: 15.60
- Top width: 13.50
- Inner width: 10.00
- Bottom width: 8.00
- Top radius: $R0.50$
- Inner radius: $R0.50$
- Bottom radius: $R0.50$
- Top hole diameter: $\varnothing 1.50$
- Inner hole diameter: $\varnothing 1.50$
- Bottom hole diameter: $\varnothing 1.50$
- Top hole position: 30.00
- Inner hole position: 10.00
- Bottom hole position: 10.00
- Top hole diameter: $\varnothing 1.50$
- Inner hole diameter: $\varnothing 1.50$
- Bottom hole diameter: $\varnothing 1.50$
- Top hole position: 30.00
- Inner hole position: 10.00
- Bottom hole position: 10.00
- Top hole diameter: $\varnothing 1.50$
- Inner hole diameter: $\varnothing 1.50$
- Bottom hole diameter: $\varnothing 1.50$
- Top hole position: 30.00
- Inner hole position: 10.00
- Bottom hole position: 10.00

Side View Dimensions:

- Overall height: 40.10
- Top width: 13.50
- Top radius: $R0.50$
- Top hole diameter: $\varnothing 1.50$
- Top hole position: 30.00
- Top hole diameter: $\varnothing 1.50$
- Inner hole diameter: $\varnothing 1.50$
- Bottom hole diameter: $\varnothing 1.50$
- Top hole position: 30.00
- Inner hole position: 10.00
- Bottom hole position: 10.00
- Top hole diameter: $\varnothing 1.50$
- Inner hole diameter: $\varnothing 1.50$
- Bottom hole diameter: $\varnothing 1.50$
- Top hole position: 30.00
- Inner hole position: 10.00
- Bottom hole position: 10.00