

Silicon NPN Darlington Power Transistors

2SD2494

DESCRIPTION

- With TO-3PML package
- Complement to type 2SB1625

APPLICATIONS

- Audio, series regulator and general purpose applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

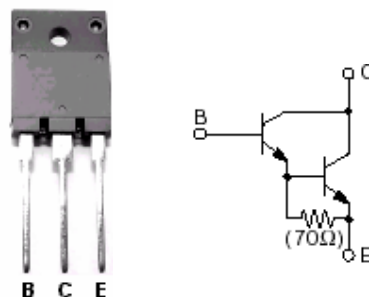


Fig.1 simplified outline (TO-3PML) and symbol

Absolute maximum ratings($T_c=25^\circ\text{C}$)

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	$T_c=25^\circ\text{C}$	60	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =50mA; I _B =0	110			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =5 A; I _B =5m A			2.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =5 A; I _B =5m A			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			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =12V		60		MHz
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=1MHz		55		pF

Switching times

t _{on}	Turn-on time	I _C =5A; R _L =6Ω 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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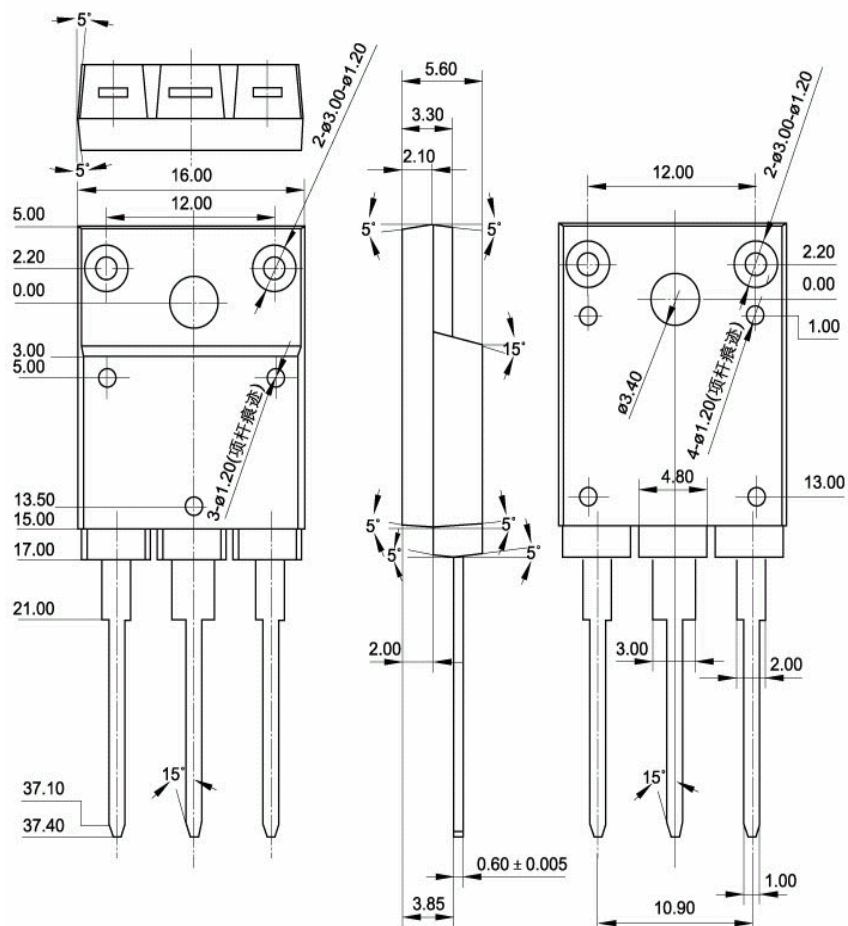


Fig.2 Outline dimensions