

Silicon NPN Power Transistors

2SD1457 2SD1457A

DESCRIPTION

- With TO-3PFa package
- High DC current gain
- DARLINGTON
- High V_{CBO}

APPLICATIONS

- For power amplification

PINNING

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

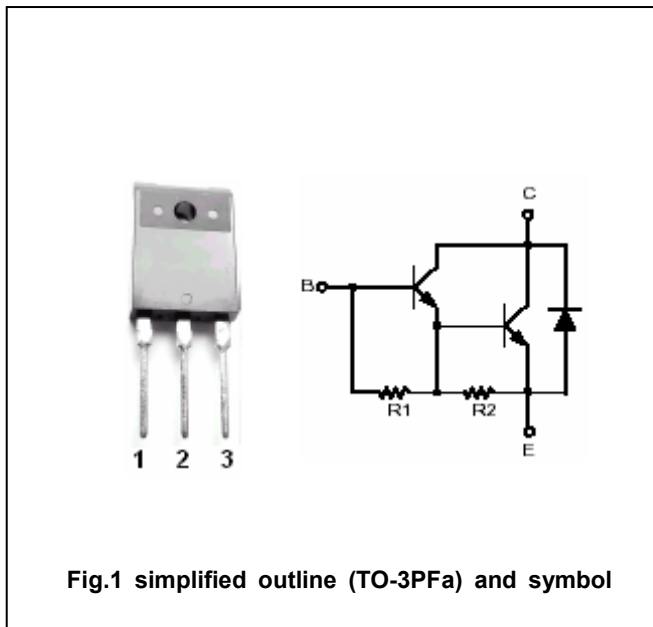


Fig.1 simplified outline (TO-3PFa) and symbol

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{CBO}	Collector-base voltage	Open emitter	200	V
V_{CEO}	Collector-emitter voltage	2SD1457	150	V
		2SD1457A	200	
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		6	A
I_{CM}	Collector current-peak		10	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	60	W
		$T_a=25^\circ\text{C}$	3.0	
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 _{CEO(SUS)}	Collector-emitter sustaining voltage	2SD1457	I _C =2A ; L=10mH	150			V
		2SD1457A		200			
V _{(BR)EBO}	Emitter-base breakdown voltage		I _E =0.1A ; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage		I _C =3A ; I _B =60mA			1.5	V
V _{BEsat}	Base-emitter saturation voltage		I _C =3A ; I _B =60mA			2.5	V
I _{CBO}	Collector cut-off current		V _{CB} =200V ; I _E =0			100	μA
h _{FE}	DC current gain		I _C =2A ; V _{CE} =2V	700		10000	
f _T	Transition frequency		I _C =0.5A ; V _{CE} =10V ; f=1MHz		15		MHz

◆ h_{FE} Classifications

Q	P	O
700-2500	2000-5000	4000-10000

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PACKAGE OUTLINE

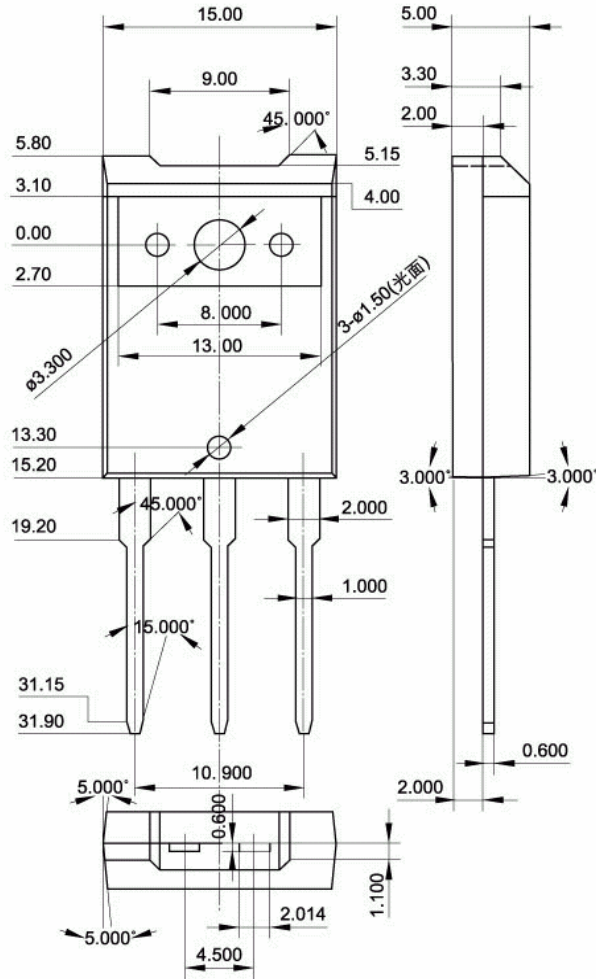


Fig.2 outline dimensions (unindicated tolerance:±0.30mm)