

Silicon NPN Power Transistors

2SD1739

DESCRIPTION

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- With TO-3PFa package
- Wide area of safe operation
- High voltage,high speed

APPLICATIONS

- Horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

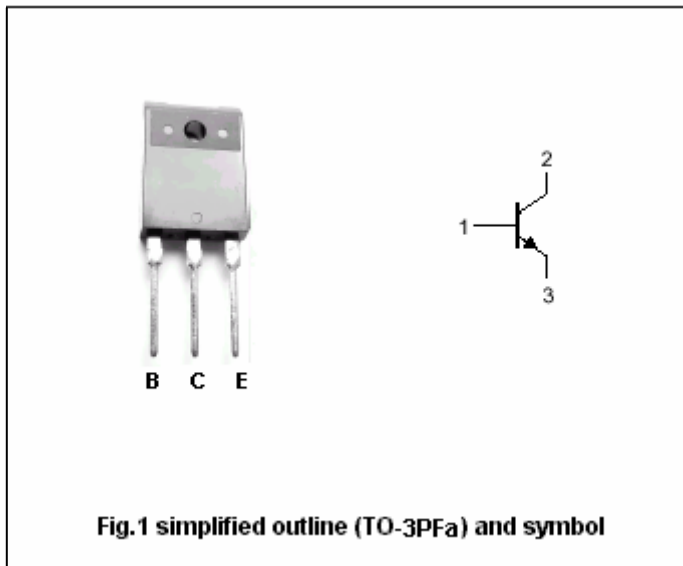


Fig.1 simplified outline (TO-3PFa) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	1500	V
$V_{CEO}$	Collector-emitter voltage	Open base	700	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		6	A
$I_{CM}$	Collector current-peak		18	A
$I_B$	Base current		2.5	A
$P_C$	Collector power dissipation	$T_C=25^\circ C$	100	W
$T_j$	Junction temperature		150	°C
$T_{stg}$	Storage temperature		-55~150	°C

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## CHARACTERISTICS

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 $T_j=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C=5A ; I_B=1.2A$			8.0	V
$V_{BEsat}$	Base-emitter saturation voltage	$I_C=5A ; I_B=1.2A$			1.5	V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1mA ; I_C=0$	7			V
$I_{CBO}$	Collector cut-off current	$V_{CB}=750V ; I_E=0$			10	$\mu A$
		$V_{CB}=1500V ; I_E=0$			1	mA
$I_{EBO}$	Emitter cut-off current	$V_{EB}=5V ; I_C=0$			10	$\mu A$
$h_{FE}$	DC current gain	$I_C=1A ; V_{CE}=5V$	6		30	
$f_T$	Transition frequency	$I_C=1A ; V_{CE}=10V$		2		MHz

## Switching times

$t_{stg}$	Storage time	$I_C=5A ; I_{B1}=1A$ $I_{B2}=-2A ; V_{CC}=200V$		1.5		$\mu s$
$t_f$	Fall time			0.2		$\mu s$

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PACKAGE OUTLINE

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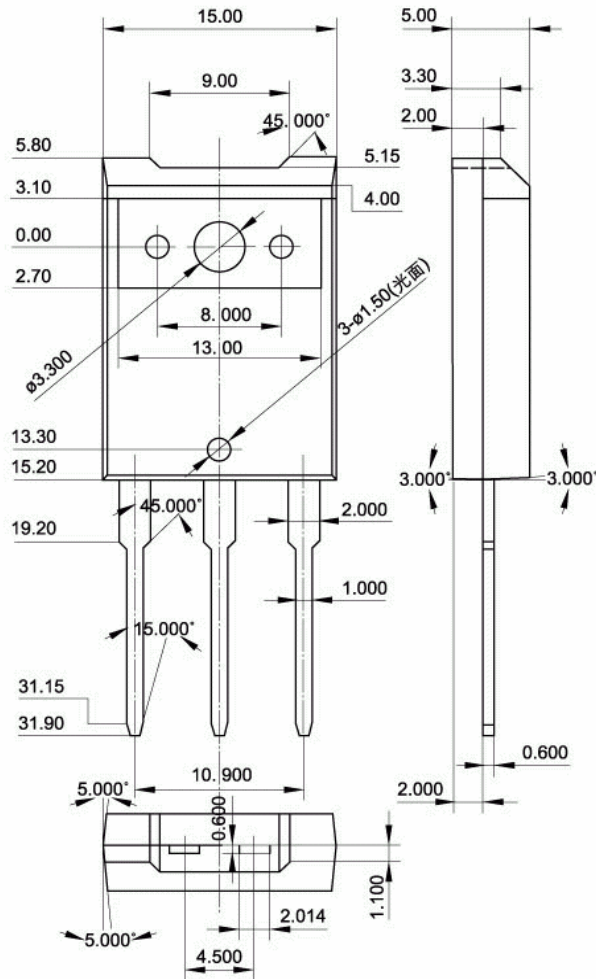


Fig.2 Outline dimensions (unindicated tolerance:±0.30mm)