

Silicon NPN Power Transistors

2SD1541

DESCRIPTION

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- With TO-3PFa package
- High voltage ,and high reliability
- Built-in damper diode
- High speed switching
- Wide area of safe operation

APPLICATIONS

- For horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

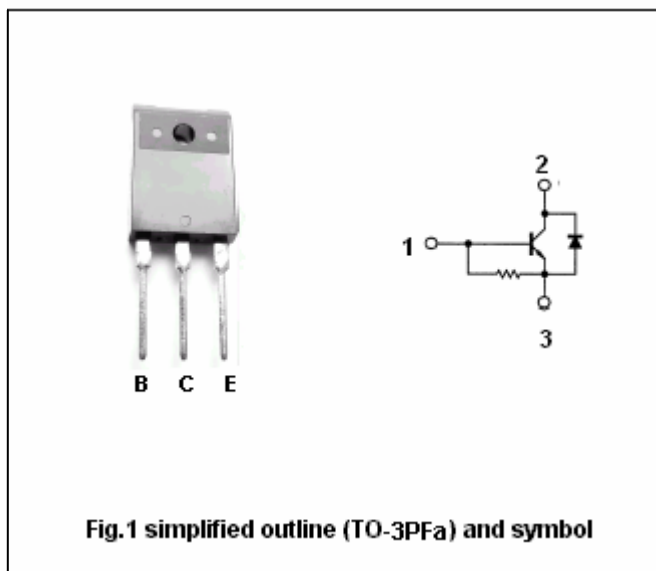


Fig.1 simplified outline (TO-3PFa) and symbol

Absolute maximum ratings(Ta=25°C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	Open emitter	1500	V
V _{EBO}	Emitter-base voltage	Open collector	5	V
I _C	Collector current		3	A
I _{CM}	Collector current-peak		10	A
I _{BM}	Base current		3.5	A
P _C	Collector power dissipation	T _C =25°C	50	W
T _j	Junction temperature		130	°C
T _{stg}	Storage temperature		-55~130	°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
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=500\text{mA}; I_C=0$	5			V
V_{CEsat}	Collector-emitter saturation voltage	$I_C=2\text{A}; I_B=0.75\text{A}$			5.0	V
V_{BEsat}	Base-emitter saturation voltage	$I_C=2\text{A}; I_B=0.75\text{A}$			1.5	V
I_{CBO}	Collector cut-off current	$V_{CB}=750\text{V}; I_E=0$			50	μA
		$V_{CB}=1500\text{V}; I_E=0$			1	mA
h_{FE}	DC current gain	$I_C=2\text{A}; V_{CE}=10\text{V}$	4		12	
V_F	Diode forward voltage	$I_C=-4\text{A}$			2.2	V

Switching times

t_{stg}	Storage time	$I_C=2\text{A}$ $I_{Bend}=0.75\text{A}; L_{Leak}=5\mu\text{H}$	3.0		7.0	μs
t_f	Fall time				0.75	μs

