

Silicon NPN Power Transistors

2SD1846

DESCRIPTION

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

APPLICATIONS

- Horizontal deflection output applications

PINNING

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter

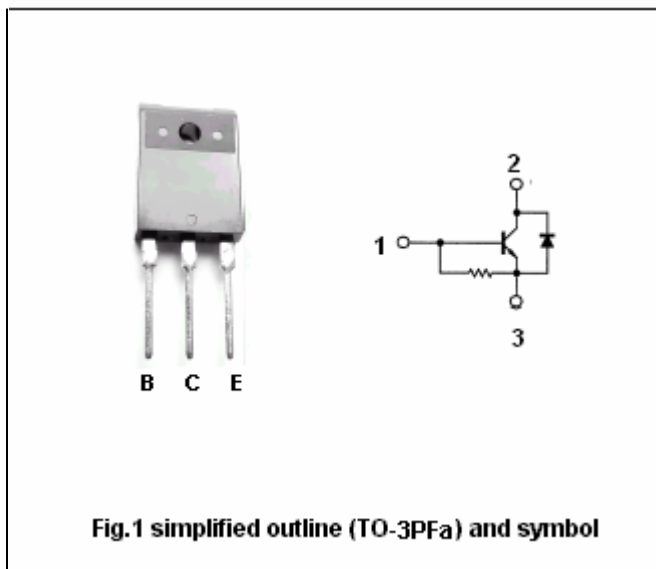


Fig.1 simplified outline (TO-3PFa) and symbol

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		3.5	A
I_{CM}	Collector current -peak		10	A
I_B	Base current		1.5	A
P_C	Collector power dissipation	$T_a=25^\circ\text{C}$	3	W
		$T_C=25^\circ\text{C}$	60	
T_j	Max.operating junction temperature		150	°C
T_{stg}	Storage temperature		-55~150	°C

Silicon NPN Power Transistors

2SD1846

CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =500mA ; I _C =0	7			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =3A; I _B =0.8A			8.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =3A; I _B =0.8A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =750V; I _E =0			10	μA
		V _{CB} =1500V; I _E =0			1.0	mA
h _{FE-1}	DC current gain	I _C =0.5A ; V _{CE} =5V	5		25	
h _{FE-2}	DC current gain	I _C =3A ; V _{CE} =10V	4			
f _T	Transition frequency	I _C =0.5A ; V _{CE} =10V; f=0.5MHz		2		MHz
V _F	Diode forward voltage	I _C =3.5A			2.0	V

Switching times resistive load

t _s	Storage time	I _C =3A; I _{B1} =0.8A; I _{B2} =-1.6A V _{CC} =200V		1.5		μs
t _f	Fall time			0.2		μs

Silicon NPN Power Transistors

2SD1846

PACKAGE OUTLINE



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