

Silicon NPN Power Transistors

2SD1427

DESCRIPTION

- With TO-3PH package
- Built-in damper diode
- High voltage ,high speed
- Low collector saturation voltage

APPLICATIONS

- Designed for use in large screen color deflection circuits

PINNING

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

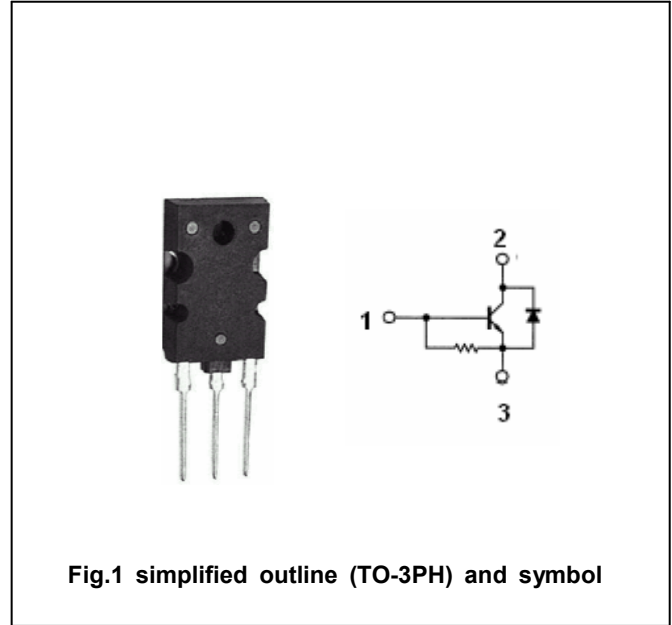


Fig.1 simplified outline (TO-3PH) and symbol

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	600	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		5	A
I_B	Base current		2.5	A
P_D	Total power dissipation	$T_C=25^\circ\text{C}$	80	W
T_j	Junction temperature		150	°C
T_{stg}	Storage temperature		-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal resistance junction case	1.56	°C/W

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =200mA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =4A; I _B =0.8A			5.0	V
V _{BEsat}	Base-emitter saturation voltage	I _C =4A; I _B =0.8A			1.5	V
I _{CBO}	Collector cut-off current	V _{CB} =500V; I _E =0			10	μA
h _{FE}	DC current gain	I _C =1A; V _{CE} =5V	8			
f _T	Transition frequency	I _C =0.1A; V _{CE} =10V; f=1MHz		3		MHz
C _{OB}	Output capacitance	I _E =0; V _{CB} =10V; f=1MHz		165		pF
V _F	Diode forward voltage	I _F =5A			2.0	V
t _f	Fall time	I _C =4A; I _{B1} =0.8A			1.0	μs

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PACKAGE OUTLINE

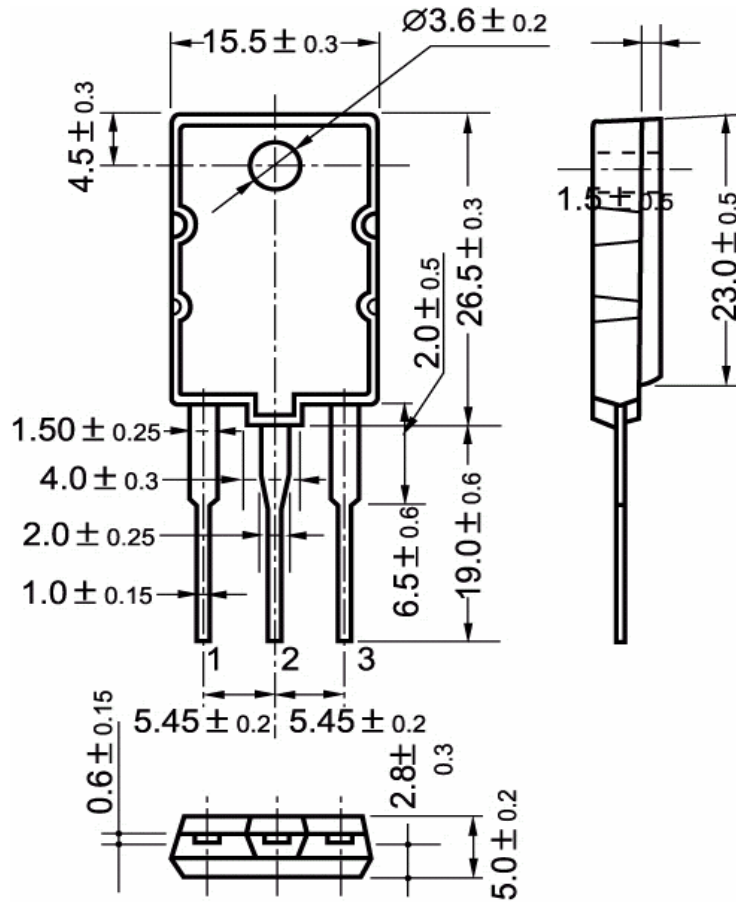


Fig.2 outline dimensions