

Silicon NPN Power Transistors

2SD402

DESCRIPTION

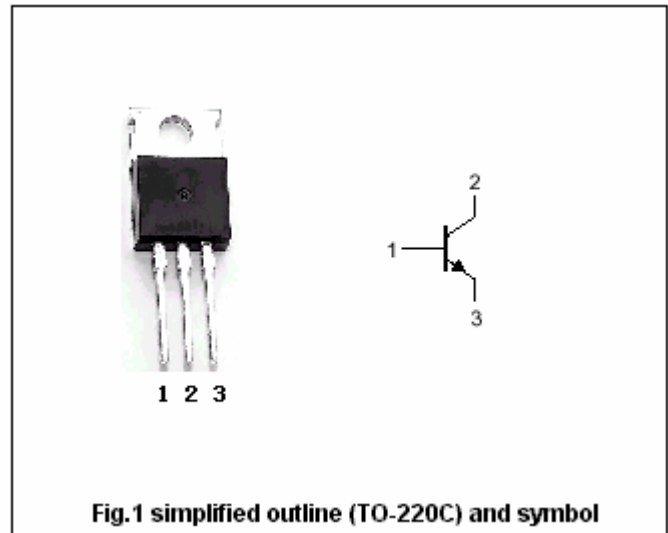
- With TO-220C package
- Complement to type 2SB547
- High breakdown voltage

APPLICATIONS

- Designed for use in line-operated color TV vertical deflection of complementary symmetry circuit

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	200	V
V_{CEO}	Collector-emitter voltage	Open base	150	V
V_{EBO}	Emitter-base voltage	Open collector	5	V
I_C	Collector current		2.0	A
I_{CM}	Collector current-Peak		3.0	A
I_B	Base current		1.5	A
P_C	Collector dissipation	$T_C=25^\circ\text{C}$	20	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-50~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	CHARACTERISTICS	MAX	UNIT
$R_{\theta jc}$	Thermal resistance junction to case	4.16	$^\circ\text{C}/\text{W}$

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CHARACTERISTICS

T_j=25 °C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =25mA; I _B =0	150			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1mA; I _C =0	5			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =0.5A; I _B =50mA			2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =150V; I _E =0			50	μA
I _{EBO}	Emitter cut-off current	V _{EB} =4V; I _C =0			50	μA
h _{FE}	DC current gain	I _C =0.4A; V _{CE} =10V	40			
f _T	Transition frequency	I _C =0.4A; V _{CE} =10V		7		MHz
C _C	Collector capacitance	I _E =0; V _{CB} =10V; f=1.0MHz		45		pF

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PACKAGE OUTLINE

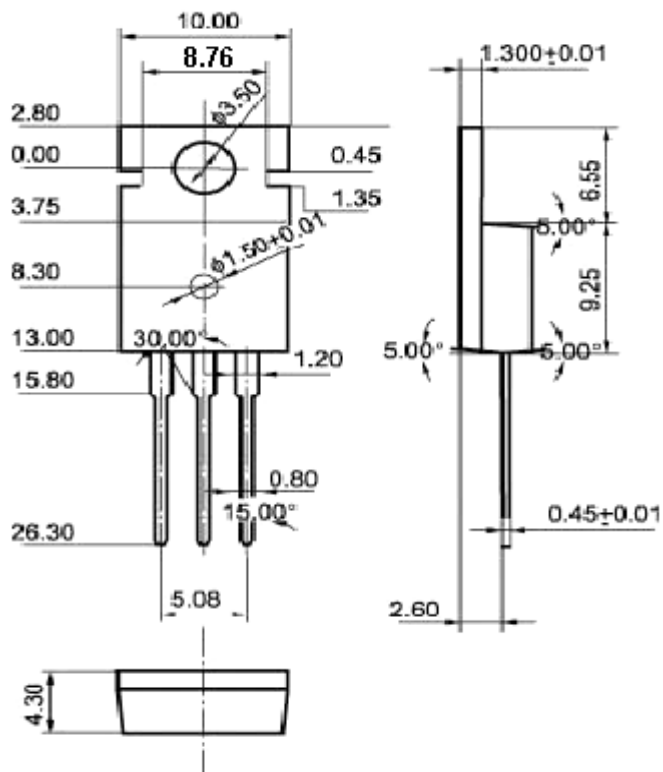


Fig.2 Outline dimensions (unindicated tolerance:±0.10mm)