

Silicon PNP Power Transistors

2SB601

DESCRIPTION

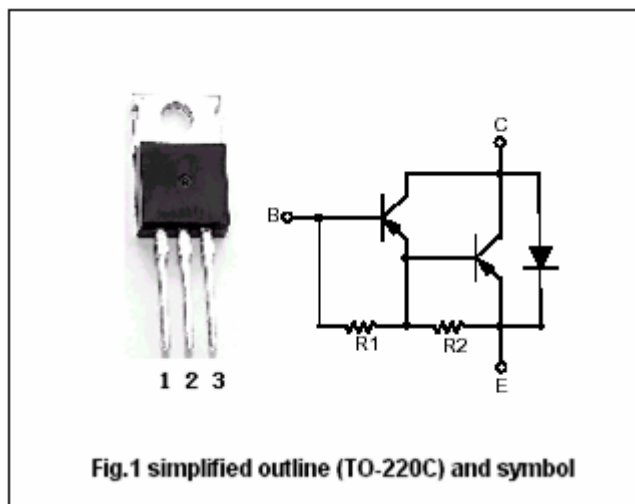
- With TO-220C package
- DARLINGTON
- High DC current gain
- Low collector saturation voltage

APPLICATIONS

- For low-frequency power amplifier and low-speed switching applications

PINNING

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	-100	V
V_{CEO}	Collector-emitter voltage	Open base	-100	V
V_{EBO}	Emitter-base voltage	Open collector	-7	V
I_C	Collector current-DC		-5	A
I_{CM}	Collector current-Pulse		-8	A
I_B	Base current-DC		-0.5	A
P_T	Total power dissipation	$T_c=25^\circ\text{C}$	30	W
		$T_a=25^\circ\text{C}$	1.5	
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

Silicon PNP Power Transistors

2SB601

CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CEQ(SUS)}	Collector-emitter sustaining voltage	I _C =-3A, I _{B1} =-3mA, L=1mH	-100			V
V _{CEsat}	Collector-emitter saturation voltage	I _C =-3A, I _B =-3mA			-1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-3A, I _B =-3mA			-2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-100V, I _E =0			-10	μA
I _{CEX}	Collector cut-off current	V _{CE} =-100V, V _{BE} =-1.5V T _a =25°C			-10 -1.0	μA mA
I _{EBO}	Emitter cut-off current	V _{EB} =-5V; I _C =0			-3.0	mA
h _{FE-1}	DC current gain	I _C =-3A; V _{CE} =-2V	2000		15000	
h _{FE-2}	DC current gain	I _C =-5A; V _{CE} =-2V	500			
C _{ob}	Output capacitance	I _E =0; V _{CB} =-10V, f=0.1MHz			300	pF

Switching times

t _{on}	Turn-on time	I _C =-3A; I _{B1} =-I _{B2} =-3mA V _{CC} =-50V; R _L =17Ω		0.5		μs
t _{stg}	Storage time			1.0		μs
t _f	Fall time			1.0		μs

◆ h_{FE-1} Classifications

M	L	K
2000-5000	3000-7000	5000-15000

Silicon PNP Power Transistors

2SB601

PACKAGE OUTLINE

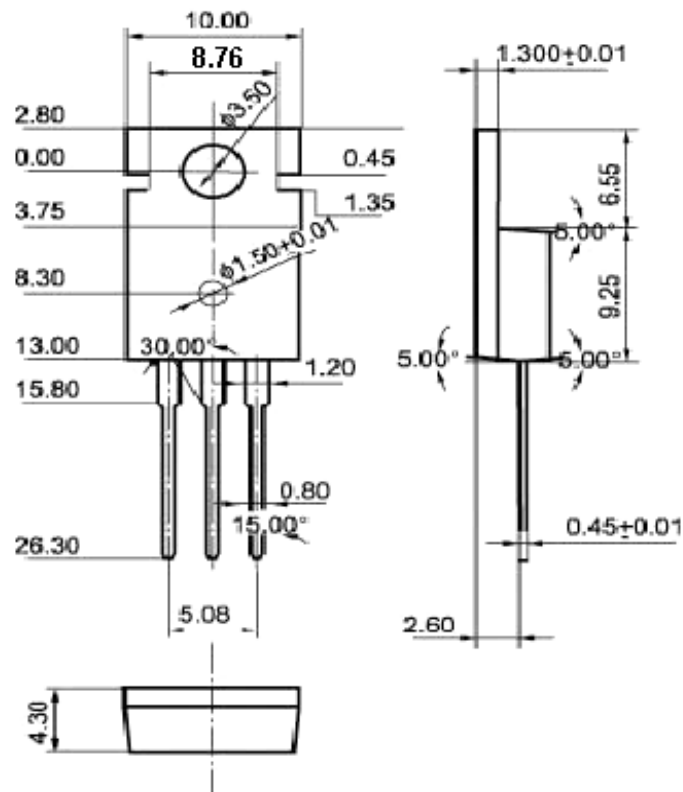


Fig.2 Outline dimensions