

Silicon NPN Power Transistors

2SD1376

DESCRIPTION

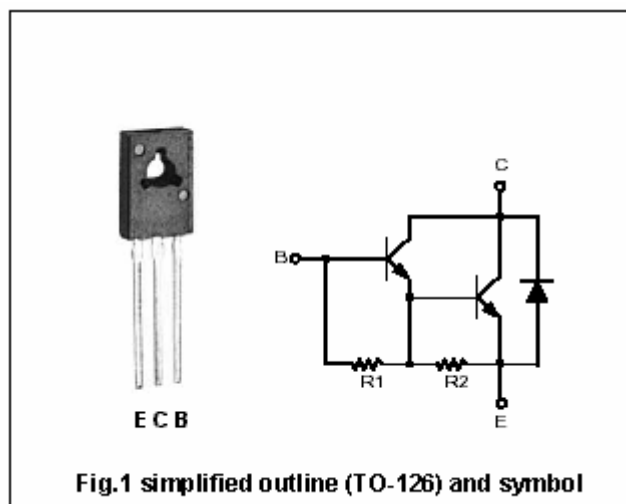
- With TO-126 package
- DARLINGTON
- Complement to type 2SB1012

APPLICATIONS

- For low frequency power amplifier applications

PINNING(see Fig.2)

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

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

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V_{CBO}	Collector-base voltage	Open emitter	120	V
V_{CEO}	Collector-emitter voltage	Open base	120	V
V_{EBO}	Emitter-base voltage	Open collector	7	V
I_C	Collector current		1.5	A
I_{CM}	Collector current-peak		3.0	A
P_C	Collector power dissipation	$T_C=25^\circ\text{C}$	20	W
T_j	Junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-55~150	$^\circ\text{C}$

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CHARACTERISTICS

Tj=25°C unless otherwise specified

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SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=10mA$; $R_{BE}=\infty$	120			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=50mA$; $I_C=0$	7			V
$V_{CEsat-1}$	Collector-emitter saturation voltage	$I_C=1.0A$; $I_B=1mA$			1.5	V
$V_{CEsat-2}$	Collector-emitter saturation voltage	$I_C=1.5A$; $I_B=1.5mA$			2.0	V
$V_{BEsat-1}$	Base-emitter saturation voltage	$I_C=1.0A$; $I_B=1mA$			2.0	V
$V_{BEsat-2}$	Base-emitter saturation voltage	$I_C=1.5A$; $I_B=1.5mA$			2.5	V
I_{CEO}	Collector cut-off current	$V_{CE}=100V$; $R_{BE}=\infty$			10	μA
I_{CBO}	Collector cut-off current	$V_{CB}=120V$; $I_E=0$			100	μA
h_{FE}	DC current gain	$I_C=1A$; $V_{CE}=3V$	2000		30000	
V_D	Diode forward voltage	$I_D=1.5A$			3.0	V
t_{on}	Turn-on time	$I_C=1A$; $I_{B1}=-I_{B2}=1mA$		0.5		μs
t_{off}	Turn-off time			2.0		μs

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PACKAGE OUTLINE

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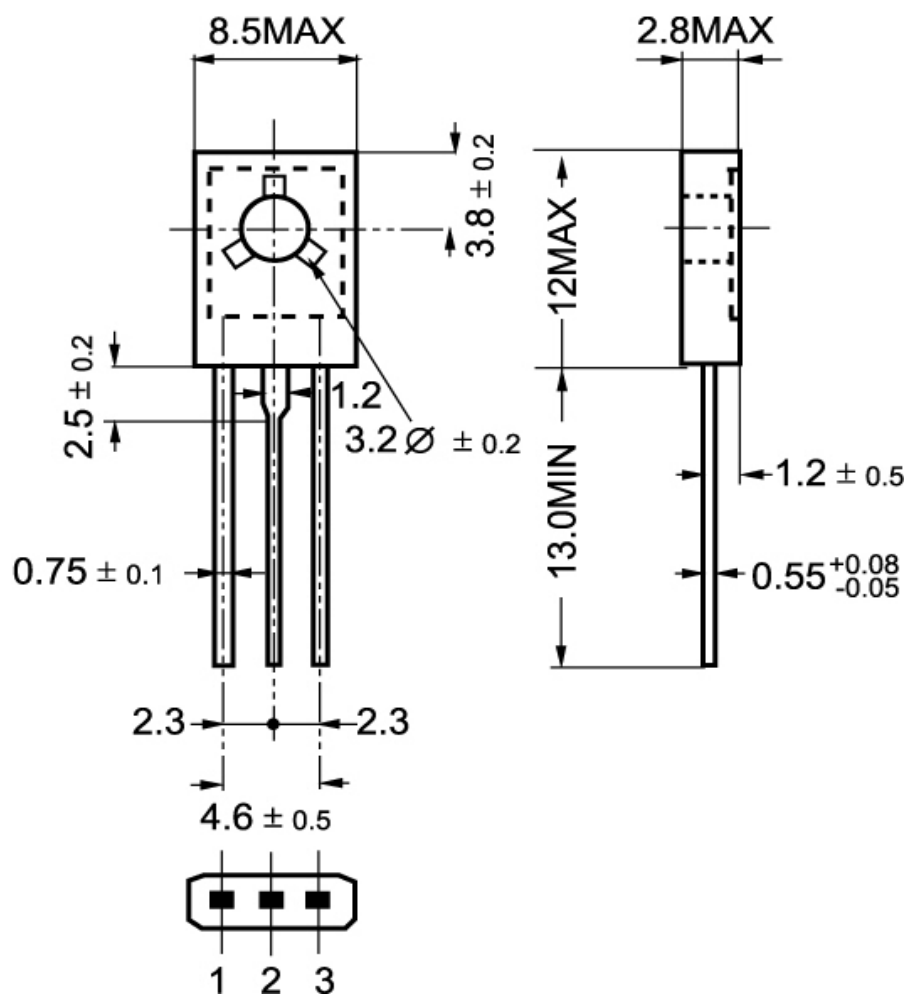


Fig.2 Outline dimensions