

## Silicon NPN Power Transistors

2SD1638

## DESCRIPTION

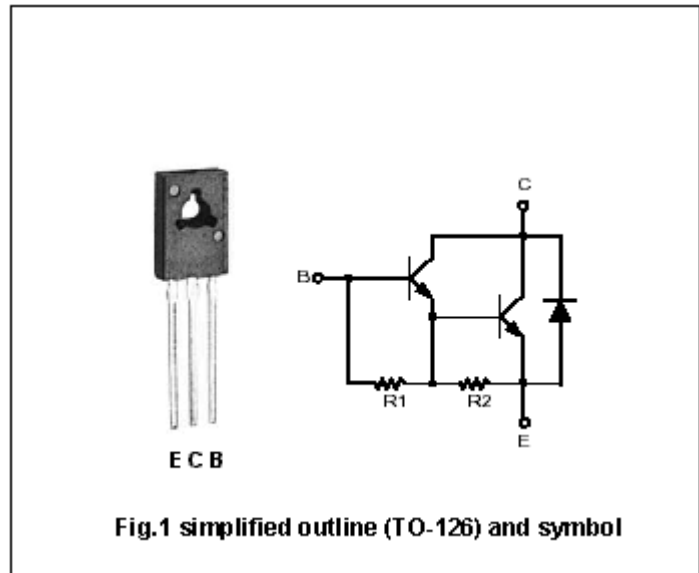
- With TO-126 package
- DARLINGTON

## APPLICATIONS

- For low frequency and power amplifier applications

## PINNING(see Fig.2)

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

Absolute maximum ratings( $T_a=25$  )

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	5	V
$I_C$	Collector current (DC)		2	A
$P_D$	Total power dissipation	$T_C=25$	10	W
$T_j$	Junction temperature		150	
$T_{stg}$	Storage temperature		-55~150	

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## CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =25mA; I <sub>B</sub> =0	100			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =1.0A ; I <sub>B</sub> =1mA			1.5	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =1.0A ; I <sub>B</sub> =1mA			2.0	V
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =100V; I <sub>B</sub> =0			0.5	mA
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =100V; I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			3	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =2V	1000		10000	
C <sub>OB</sub>	Collector output capacitance	f=0.1MHz ; V <sub>CB</sub> =10V		25		pF

PACKAGE OUTLINE

