

## Silicon NPN Power Transistors

2SC3179

**DESCRIPTION**

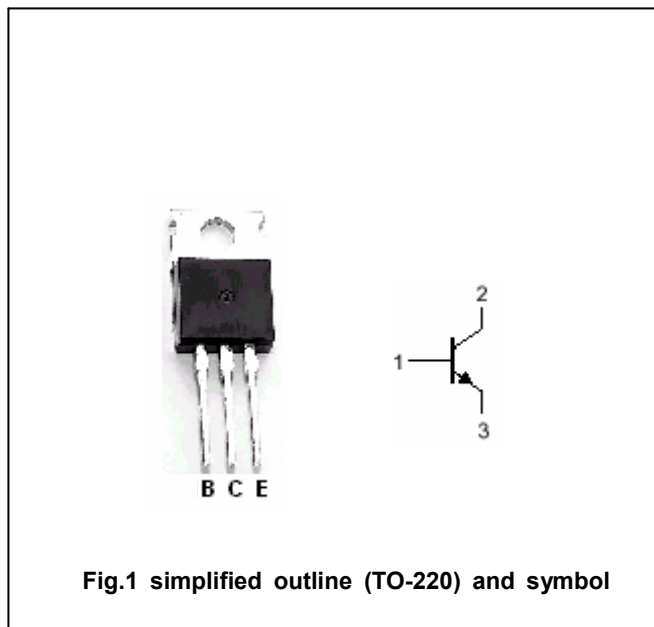
- With TO-220 package
- Complement to type 2SA1262
- Low collector saturation voltage

**APPLICATIONS**

- Audio and general purpose applications

**PINNING**

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

**Absolute maximum ratings(Ta=25℃)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	80	V
$V_{CEO}$	Collector-emitter voltage	Open base	60	V
$V_{EBO}$	Emitter-base voltage	Open collector	6	V
$I_C$	Collector current		4	A
$I_B$	Base current		1	A
$P_C$	Collector power dissipation	$T_C=25^\circ\text{C}$	30	W
$T_j$	Junction temperature		150	℃
$T_{stg}$	Storage temperature		-55~150	℃

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =25mA, I <sub>B</sub> =0	60			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2A; I <sub>B</sub> =0.2 A			0.6	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =80V; I <sub>E</sub> =0			100	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =6V; I <sub>C</sub> =0			100	μA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A; V <sub>CE</sub> =4V	40			
f <sub>T</sub>	Transition frequency	I <sub>E</sub> =-0.2A; V <sub>CE</sub> =12V		15		MHz
C <sub>OB</sub>	Output capacitance	f=1MHz; V <sub>CB</sub> =10V		60		pF

Switching times resistive load

t <sub>on</sub>	Turn-on time	I <sub>C</sub> =2A I <sub>B1</sub> =-I <sub>B2</sub> =0.2A R <sub>L</sub> =10Ω; V <sub>CC</sub> =20V		0.2		μs
t <sub>s</sub>	Storage time			1.9		μs
t <sub>f</sub>	Fall time			0.29		μs

