

## Silicon NPN Power Transistors

2SC2429

## DESCRIPTION

- With TO-3 package
- High voltage ,high speed
- Wide area of safe operation

## APPLICATIONS

- High speed switching
- Converters and inverters

## PINNING (See Fig.2)

PIN DE	SCRIPTION
1	Base
2	Emitter
3	Collector

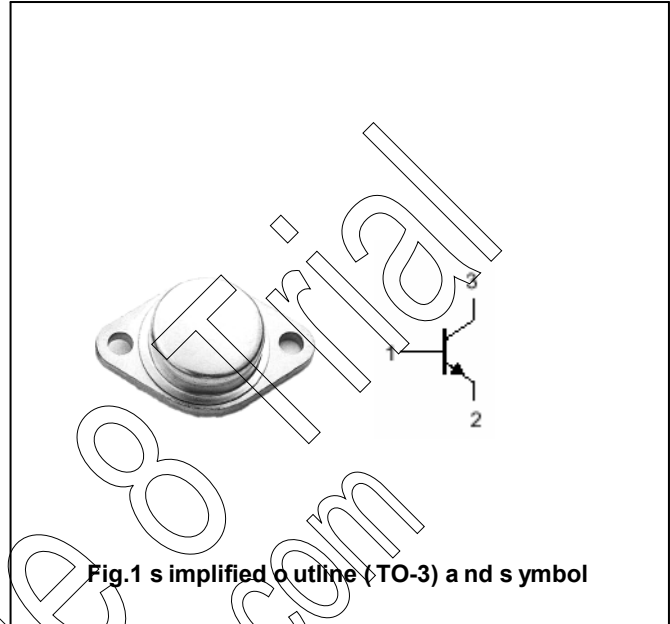


Fig.1 simplified outline (TO-3) and s ymbol

Absolute maximum ratings( $T_a = \square$ )

SYMBOL P	ARAMETER	CONDITIONS	MAX	UNIT
$V_{CBO}$	Collector-base voltage	Open emitter	450	V
$V_{CEO}$	Collector-emitter voltage	Open base	400	V
$V_{EBO}$	Emitter-base voltage	Open collector	7	V
$I_C$	Collector current		15	A
$I_{CM}$	Collector current-Peak		20	A
$I_B$	Base current		5	A
$P_T$	Total power dissipation	$T_C = 25 \square$	150	W
$T_j$	Junction temperature		175	$\square$
$T_{stg}$	Storage temperature		-65~175	$\square$

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =1A; R <sub>BE</sub> =∞	400			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =1mA; I <sub>C</sub> =0	7			V
V <sub>CEsat</sub> C	Collector-emitter saturation voltage	I <sub>C</sub> =10A; I <sub>B</sub> =2A		0.45	1.0	V
V <sub>BEsat</sub> B	Base-emitter saturation voltage	I <sub>C</sub> =10A; I <sub>B</sub> =2A		1.2	2.0	V
I <sub>CBO</sub>	Collector cut-off current	V <sub>CB</sub> =450V; I <sub>E</sub> =0			0.1	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =6V; I <sub>C</sub> =0			0.1	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =10A; V <sub>CE</sub> =5V 10		15	40	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =2A; V <sub>CE</sub> =10V, f=10MHz		35		MHz
C <sub>OB</sub> C	Collector output capacitance	I <sub>E</sub> =0; V <sub>CB</sub> =10V, f=1MHz		230		pF
Switching times						
t <sub>r</sub>	Rise time	V <sub>CC</sub> =150V, I <sub>C</sub> =10A I <sub>B1</sub> =-I <sub>B2</sub> =2A		0.15	0.5	μs
t <sub>stg</sub> S	Storage time			1.20	2.5	μs
t <sub>f</sub>	Fall time			0.	10	0.3

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PACKAGE OUTLINE

