

SavantIC Semiconductor

Product Specification

Silicon NPN Power Transistors

TIP41/41A/41B/41C

DESCRIPTION

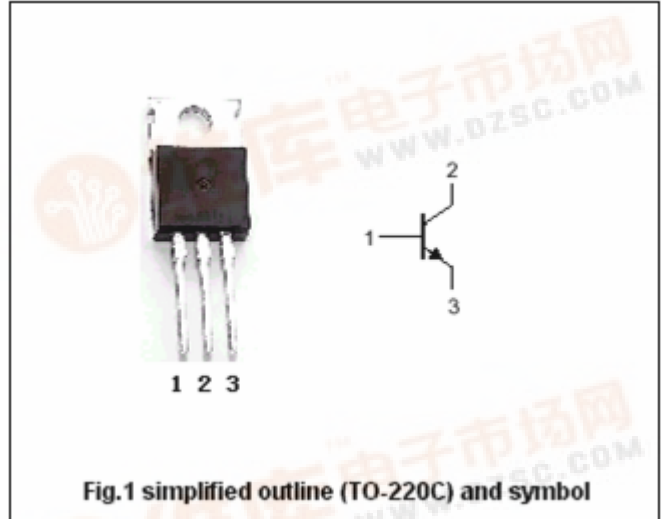
- With TO-220C package
- Complement to type TIP42/42A/42B/42C

APPLICATIONS

- For medium power linear switching applications

PINNING

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



ABSOLUTE MAXIMUM RATINGS(T<sub>c</sub>=25 °C)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	TIP41	40	V
		TIP41A	60	
		TIP41B	80	
		TIP41C	100	
V <sub>CEO</sub>	Collector-emitter voltage	TIP41	40	V
		TIP41A	60	
		TIP41B	80	
		TIP41C	100	
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current (DC)		6	A
I <sub>CM</sub>	Collector current-Pulse		10	A
I <sub>B</sub>	Base current		2	A
P <sub>C</sub>	Collector power dissipation	T <sub>c</sub> =25 °C	65	W
		T <sub>a</sub> =25 °C	2	
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-65~150	°C

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## TIP41/41A/41B/41C

## 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	TIP41	I <sub>C</sub> =30mA; I <sub>B</sub> =0			V
		TIP41A				
		TIP41B				
		TIP41C				
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =6A; I <sub>B</sub> =0.6A			1.5	V
V <sub>BE</sub>	Base-emitter on voltage	I <sub>C</sub> =6A; V <sub>CE</sub> =4V			2.0	V
I <sub>CES</sub>	Collector cut-off current	TIP41			0.4	mA
		TIP41A				
		TIP41B				
		TIP41C				
I <sub>CEO</sub>	Collector cut-off current	TIP41/41A			0.7	mA
		TIP41B/41C				
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			1.0	mA
h <sub>FE-1</sub>	DC current gain	I <sub>C</sub> =0.3A; V <sub>CE</sub> =4V	30			
h <sub>FE-2</sub>	DC current gain	I <sub>C</sub> =3A; V <sub>CE</sub> =4V	15		75	
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A; V <sub>CE</sub> =10V	3			MHz

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PACKAGE OUTLINE

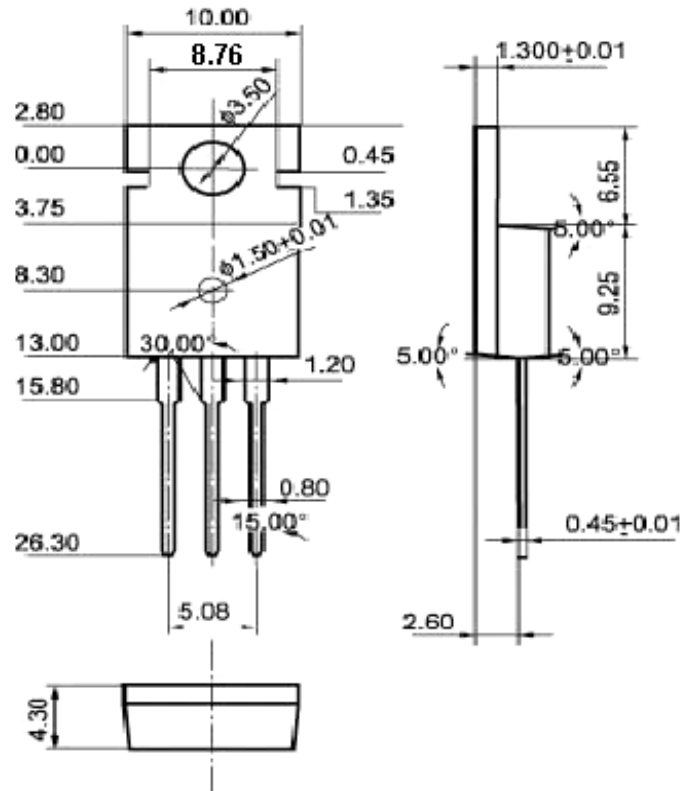
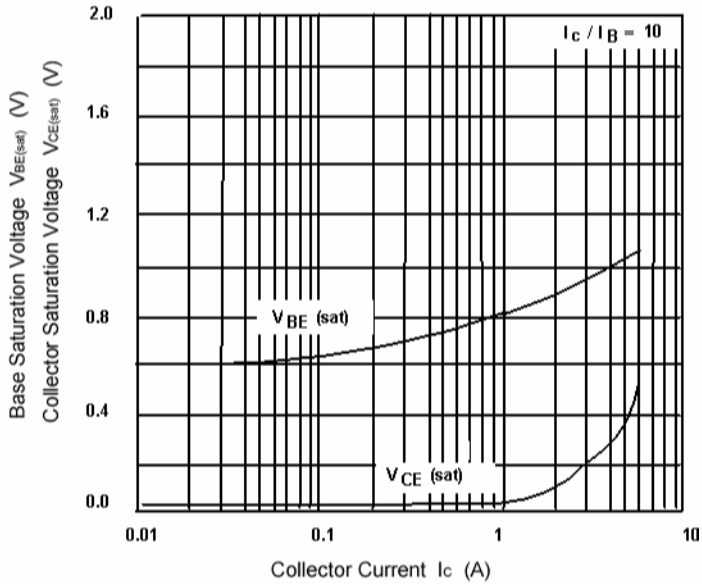


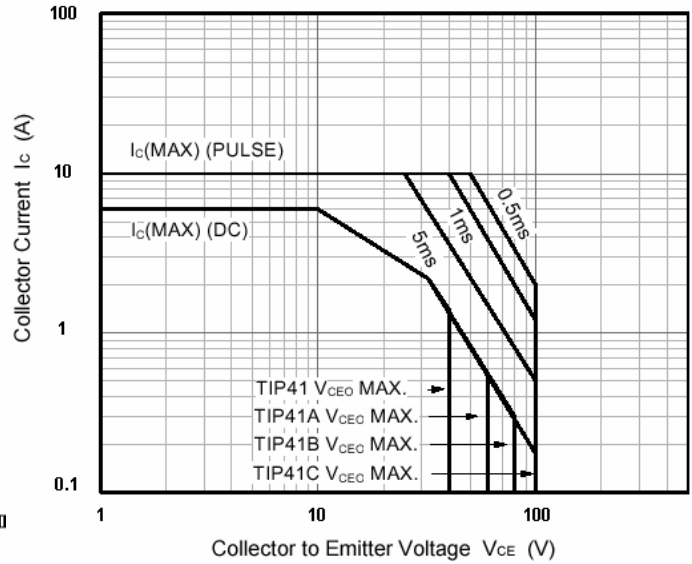
Fig.2 Outline dimensions

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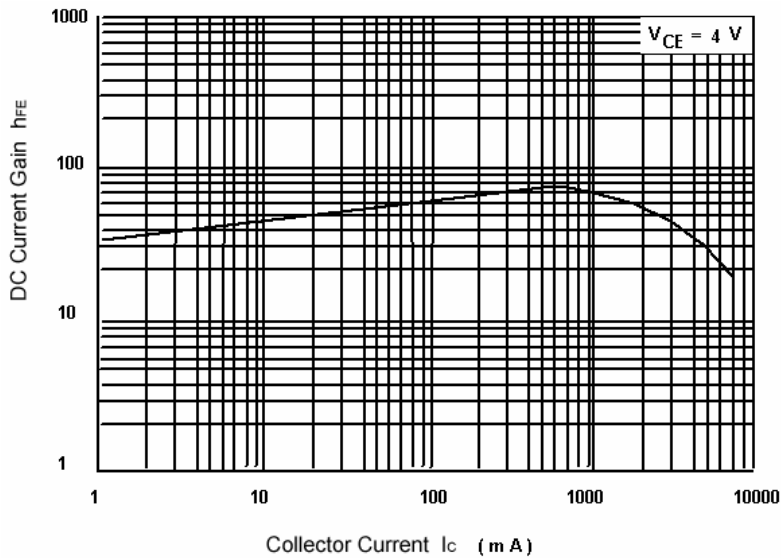
TIP41/41A/41B/41C



**Fig.3 Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage**



**Fig.4 Safe Operating Area**



**Fig.5 DC current Gain**