

Silicon NPN Power Transistors

BU911

DESCRIPTION

- With TO-220C package
- DARLINGTON

APPLICATIONS

- Solenoid and relay drivers
- Motor control
- Electronic automotive ignition

PINNING

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

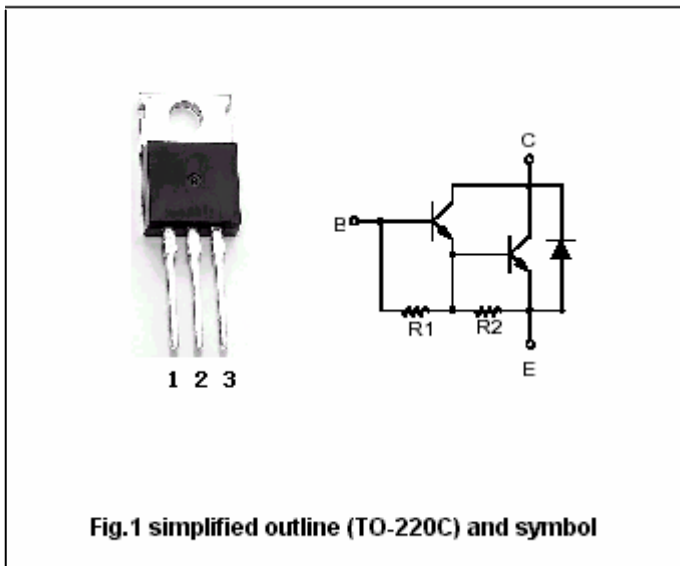


Fig.1 simplified outline (TO-220C) and symbol

Absolute maximum ratings (Ta=25 )

SYMBOL	PARAMETER	CONDITIONS	VALUE	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	5	V
$I_C$	Collector current (DC)		6	A
$I_{CM}$	Collector current (peak)		10	A
$I_B$	Base current		1	A
$P_{tot}$	Total power dissipation	$T_C=25$	60	W
$T_j$	Max.operating junction temperature		150	
$T_{stg}$	Storage temperature		-65~150	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-case}$	Thermal resistance junction case	2.08	/W

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## CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE0(SUS)</sub>	Collector-emitter sustaining voltage	I <sub>C</sub> =0.1 A ; I <sub>B</sub> =0; L=10mH	400			V
V <sub>CEsat-1</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =2.5A ; I <sub>B</sub> =50mA			1.8	V
V <sub>CEsat-2</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4A ; I <sub>B</sub> =200mA			1.8	V
V <sub>BEsat-1</sub>	Base-emitter saturation voltage	I <sub>C</sub> =2.5A ; I <sub>B</sub> =50mA			2.2	V
V <sub>BEsat-2</sub>	Base-emitter saturation voltage	I <sub>C</sub> =4A ; I <sub>B</sub> =200mA			2.5	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =450V; V <sub>BE</sub> =0; T <sub>C</sub> =125			1.0 5.0	mA
I <sub>CEO</sub>	Collector cut-off current	V <sub>CE</sub> =400V; I <sub>B</sub> =0			1.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			5	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =3A ; V <sub>CE</sub> =5V	500			
V <sub>F</sub>	Diode forward voltage	I <sub>F</sub> =4A			2.5	V

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PACKAGE OUTLINE

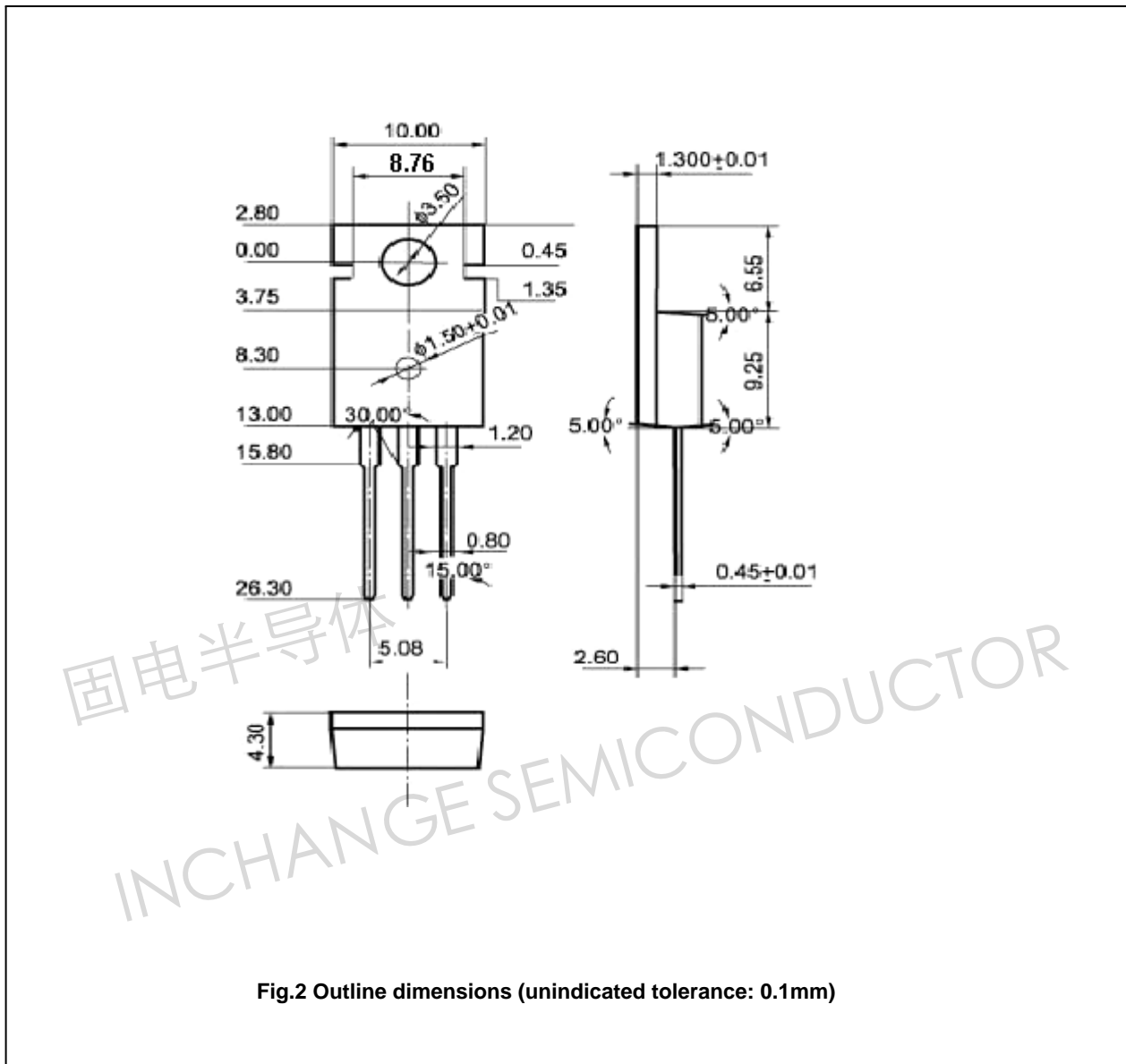


Fig.2 Outline dimensions (unindicated tolerance: 0.1mm)