

**Silicon NPN Power Transistors**

**BU208D**

**DESCRIPTION**

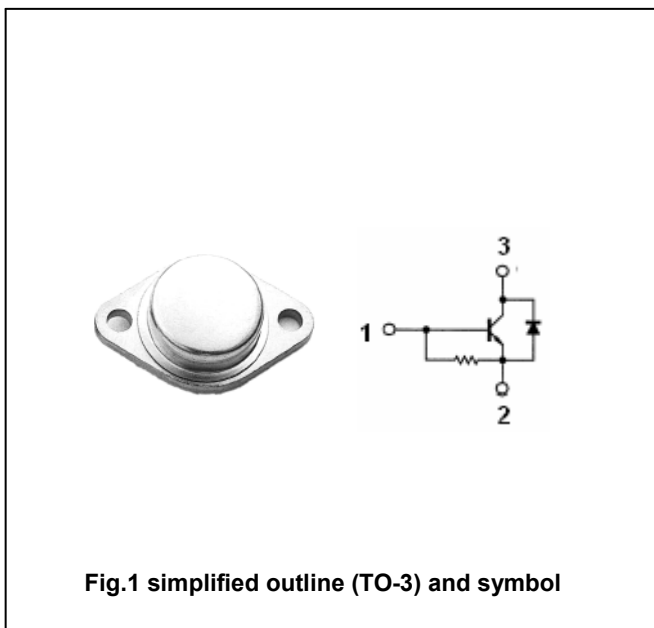
- With TO-3 package
- Built-in damper diode
- High voltage capability

**APPLICATIONS**

- For use in horizontal deflection output stages for color TV receives.

**PINNING(see fig.2)**

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



**Fig.1 simplified outline (TO-3) and symbol**

**Absolute maximum ratings(Ta=□)**

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	1500	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	700	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	10	V
I <sub>C</sub>	Collector current		8	A
I <sub>CM</sub>	Collector current-peak		15	A
P <sub>T</sub>	Total power dissipation	T <sub>C</sub> =25□	150	W
T <sub>j</sub>	Junction temperature		175	□
T <sub>stg</sub>	Storage temperature		-65~175	□

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-C</sub>	Thermal resistance junction to case	1.0	K/W

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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> =0.1A; I <sub>B</sub> =0;	700			V
V <sub>CEsat</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =4.5 A; I <sub>B</sub> =2 A			1.0	V
V <sub>BEsat</sub>	Base-emitter saturation voltage	I <sub>C</sub> =4.5 A; I <sub>B</sub> =2 A			1.3	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =1500V; V <sub>BE</sub> =0 T <sub>j</sub> =125 °C			1.0 2.0	mA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			300	mA
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	8			
V <sub>F</sub>	Diode forward voltage	I <sub>F</sub> =4A			2.0	V
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.1A ; V <sub>CE</sub> =5V		7		MHz
t <sub>s</sub>	Storage time	I <sub>C</sub> =4.5A; I <sub>B</sub> =1.8A; V <sub>CC</sub> =140V L <sub>C</sub> =0.9mH; L <sub>B</sub> =3μH		7		μs
t <sub>f</sub>	Fall time			0.55		μs

PACKAGE OUTLINE



Fig.2 Outline dimensions