

**Inchange Semiconductor**

**Product Specification**

**Silicon NPN Power Transistors**

**2SC4589**

**DESCRIPTION**

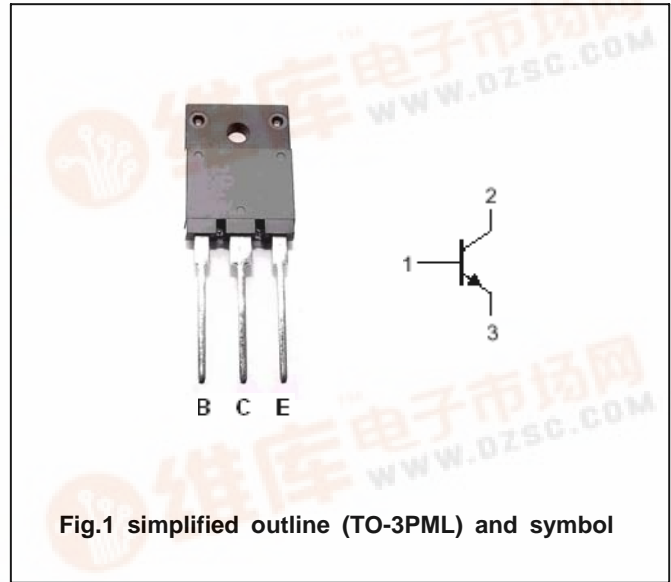
- With TO-3PML package
- High breakdown voltage
- High speed switching

**APPLICATIONS**

- For color TV display horizontal deflection output applications

**PINNING**

PIN	DESCRIPTION
1	Base
2	Collector
3	Emitter



**Absolute maximum ratings(T<sub>a</sub>=25°C)**

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	800	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	5	V
I <sub>C</sub>	Collector current		10	A
I <sub>C(surge)</sub>	Collector surge current		20	A
I <sub>B</sub>	Base current		0.6	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25°C	50	W
T <sub>j</sub>	Junction temperature		150	°C
T <sub>stg</sub>	Storage temperature		-55~150	°C

## Silicon NPN Power Transistors

## 2SC4589

## 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> =10mA; R <sub>BE</sub> =∞	800			V
V <sub>(BR)EBO</sub>	Emitter-base breakdown voltage	I <sub>E</sub> =10mA; I <sub>C</sub> =0	5			V
V <sub>CE(sat)</sub>	Collector-emitter saturation voltage	I <sub>C</sub> =8A; I <sub>B</sub> =1.6 A			5.0	V
V <sub>BE(sat)</sub>	Base-emitter saturation voltage	I <sub>C</sub> =8A; I <sub>B</sub> =1.6 A			1.5	V
I <sub>CES</sub>	Collector cut-off current	V <sub>CE</sub> =1500V; R <sub>BE</sub> =0			500	μ A
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			100	μ A
h <sub>FE</sub>	DC current gain	I <sub>C</sub> =1A ; V <sub>CE</sub> =5V	8		38	
t <sub>f</sub>	Fall time	I <sub>CP</sub> =7A; I <sub>B1</sub> =1.4A		0.2	0.5	μ s

