

isc Silicon NPN Power Transistor

2SC5902

**DESCRIPTION**

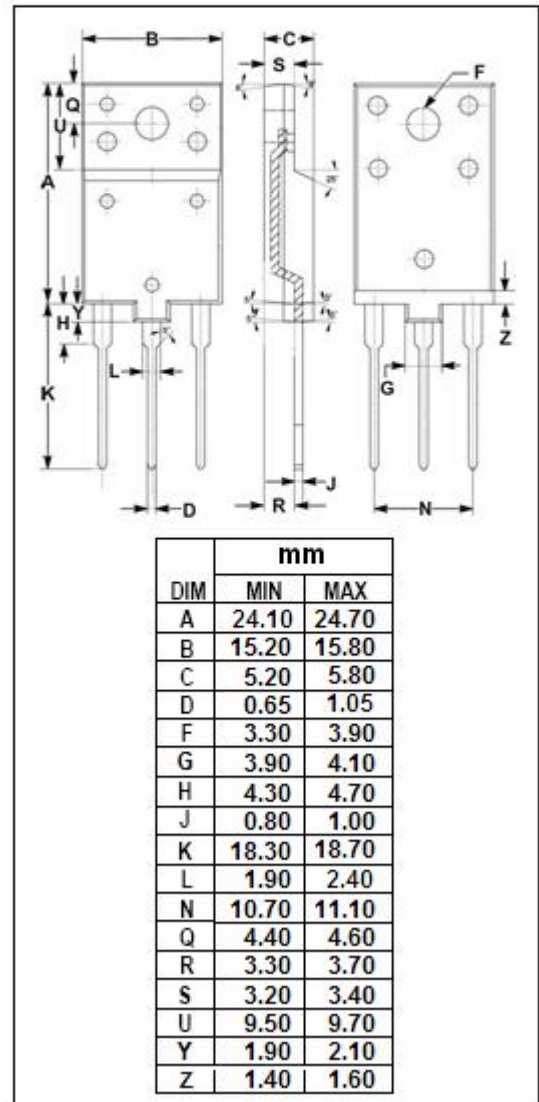
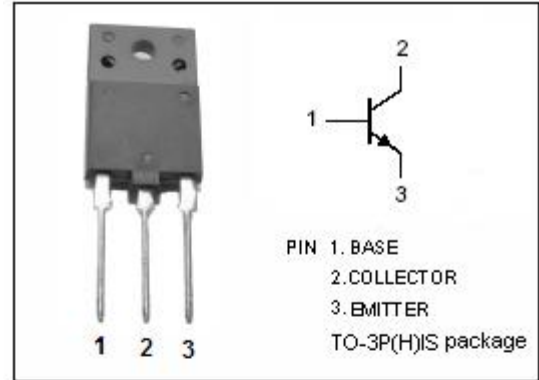
- High Breakdown Voltage
- Built-in damper diode type
- High Switching Speed
- Wide Area of Safe Operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for high voltage color display horizontal deflection output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	1700	V
V <sub>CES</sub>	Collector-Emitter Voltage	1700	V
V <sub>EBO</sub>	Emitter-Base Voltage	7	V
I <sub>C</sub>	Collector Current- Continuous	9	A
I <sub>CM</sub>	Collector Current- Peak	14	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	40	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4.5A; I <sub>B</sub> = 1.13A			3.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 4.5A; I <sub>B</sub> = 1.15A			1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 1000V; V <sub>BE</sub> = 0			50	uA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 7V; I <sub>C</sub> = 0			500	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 4.5A; V <sub>CE</sub> = 5V	5		10	

## Switching Times

t <sub>stg</sub>	Storage Time				5.0	μ s
t <sub>f</sub>	Fall Time	I <sub>C</sub> = 4.5A, I <sub>B1</sub> = 1.13A; I <sub>B2</sub> = -2.25A;			0.5	μ s

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