

**isc Silicon NPN Power Transistor**
**2SD1291**
**DESCRIPTION**

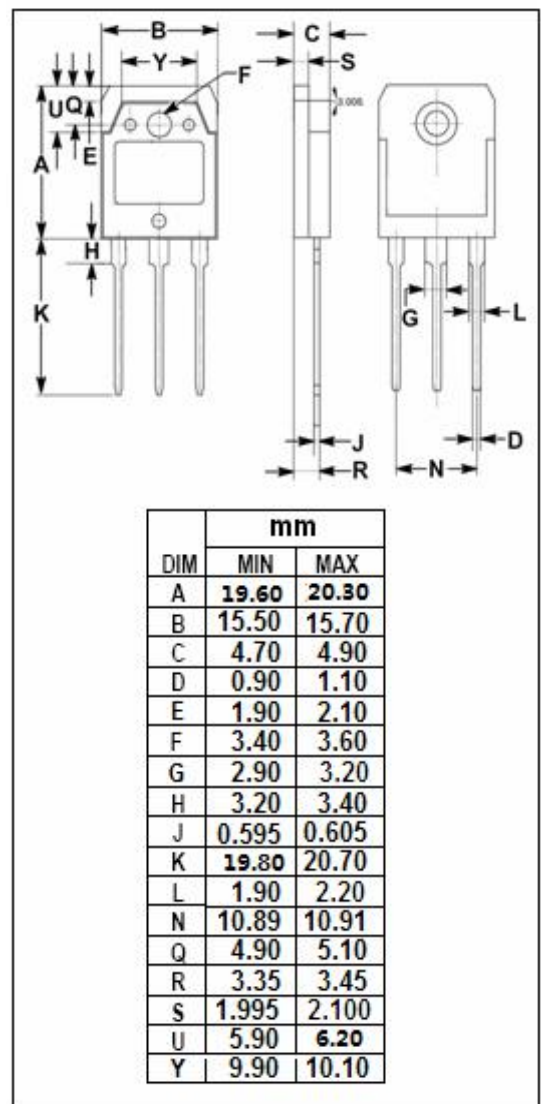
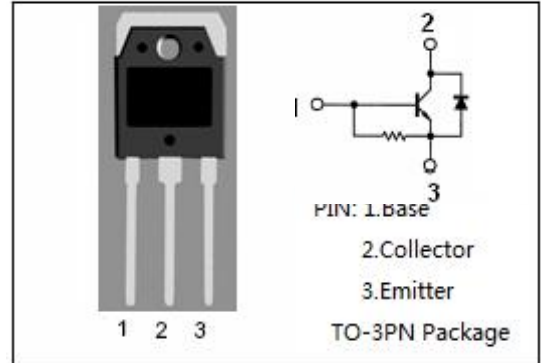
- High Voltage
- Wide Area of Safe Operation
- Built-in damper diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for color TV horizontal deflection output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	1500	V
V <sub>CES</sub>	Collector-Emitter Voltage	1500	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current-Continuous	3	A
I <sub>CM</sub>	Collector Current-Peak	13	A
P <sub>C</sub>	Collector Power Dissipation @T <sub>C</sub> =25°C	65	W
T <sub>J</sub>	Junction Temperature	130	°C
T <sub>stg</sub>	Storage Temperature Range	-55-130	°C



## isc Silicon NPN Power Transistor

## 2SD1291

## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 200mA; I <sub>C</sub> = 0	5			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 2.5A; I <sub>B</sub> = 0.8A			5.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 2.5A; I <sub>B</sub> = 0.8A			1.5	V
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 2.5A; V <sub>CE</sub> = 10V	4		12	
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 750V; I <sub>E</sub> = 0 V <sub>CB</sub> = 1500V; I <sub>E</sub> = 0			50 1.0	μ A mA
V <sub>ECF</sub>	C-E Diode Forward Voltage	I <sub>F</sub> = 4A			2.2	V

## Switching Times

t <sub>s</sub>	Storage Time	I <sub>C</sub> = 2.5A; I <sub>Leak</sub> = 0.8A; L <sub>B</sub> = 5 μ H			8	μ s
t <sub>f</sub>	Fall Time				1	μ s

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