

**isc Silicon PNP Power Transistor**

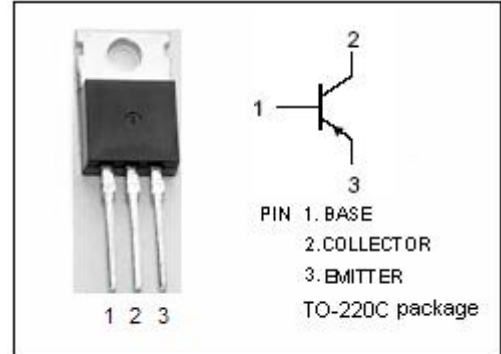
**MJE9780**

**DESCRIPTION**

- Standard TO-220 Package
- Gain Range of 50 – 200 at 500 mAdc/10 volts
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

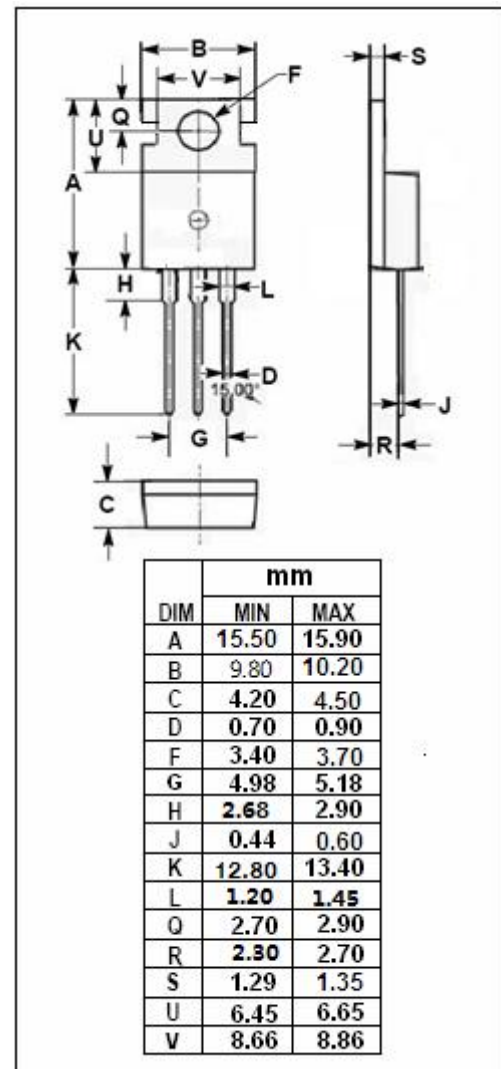
**APPLICATIONS**

- Designed for vertical output of 14-inch to 17-inch televisions and CRT monitors, as well as other applications requiring a 150 volt PNP transistor.



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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	-200	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-150	V
V <sub>EBO</sub>	Emitter-Base Voltage	-6	V
I <sub>C</sub>	Collector Current-Continuous	-3	A
I <sub>CM</sub>	Collector Current-Peak	-5	A
P <sub>C</sub>	Total 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



**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	3.12	°C/W

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**ELECTRICAL CHARACTERISTICS**
**T<sub>c</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> = -50mA ; I <sub>B</sub> = 0	-150			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -5mA ; I <sub>C</sub> = 0	-6			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -0.5A; I <sub>B</sub> = -50mA			-0.8	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -4V			-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -150V ; I <sub>E</sub> = 0			-10	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0			-10	μ A
h <sub>FE 1</sub>	DC Current Gain	I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -10V	50		200	
h <sub>FE 2</sub>	DC Current Gain	I <sub>C</sub> = -0.05A ; V <sub>CE</sub> = -10V	60			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -0.5A; V <sub>CE</sub> = -10V; f <sub>test</sub> = 1MHz		5		MHz

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