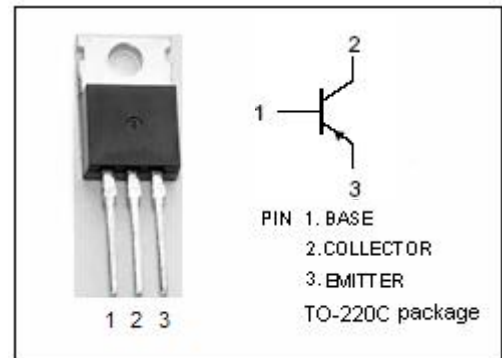


## isc Silicon PNP Power Transistor

## 2SA1006A

### DESCRIPTION

- Good Linearity of  $h_{FE}$
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -200V(\text{Min})$
- Wide Area of Safe Operation
- Complement to Type 2SC2336A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

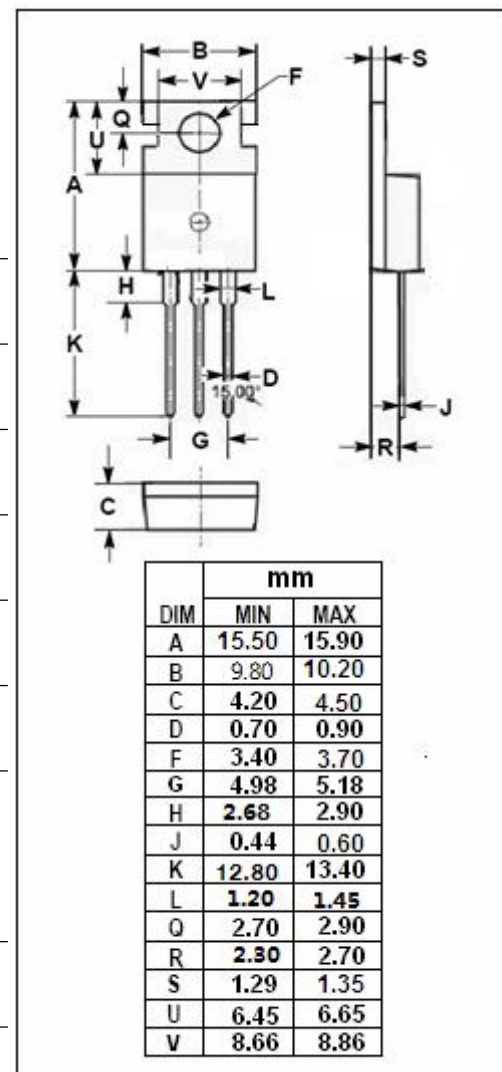


### APPLICATIONS

- Audio frequency power amplifier
- High frequency power amplifier

### ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-200	V
$V_{CEO}$	Collector-Emitter Voltage	-200	V
$V_{EBO}$	Emitter-Base Voltage	-5.0	V
$I_C$	Collector Current-Continuous	-1.5	A
$I_{CM}$	Collector Current-Peak	-3.0	A
$P_C$	Collector Power Dissipation@ $T_a=25^\circ\text{C}$	1.5	W
	Total Power Dissipation@ $T_c=25^\circ\text{C}$	25	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**isc Silicon PNP Power Transistor****2SA1006A****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> = -500mA; I <sub>B</sub> = -50mA			-1.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = -500mA; I <sub>B</sub> = -50mA			-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -150V; I <sub>E</sub> = 0			-1.0	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -3.0V; I <sub>C</sub> =0			-1.0	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -5mA ; V <sub>CE</sub> = -5V	30			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -150mA ; V <sub>CE</sub> = -5V	60		320	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -100mA ; V <sub>CE</sub> = -10V		80		MHz
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = -10V; f= 1.0MHz		45		pF

**◆ h<sub>FE-2</sub> Classifications**

R	Q	P
60-120	100-200	160-320

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