

**Silicon PNP Power Transistor**

**2SA1003**

**DESCRIPTION**

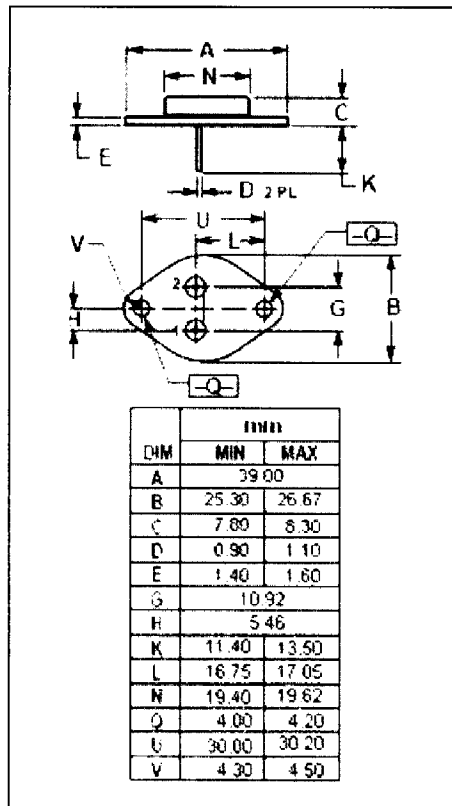
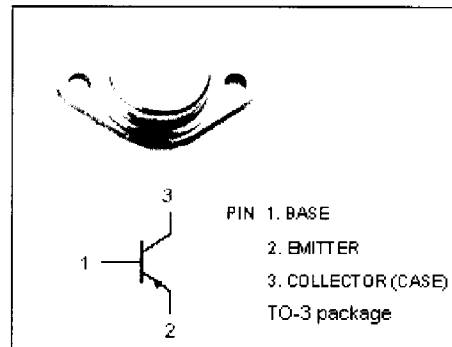
- High Current Capability
- Collector-Emitter Breakdown Voltage:  
 $V_{(BR)CEO} = -150V(\text{Min.})$

**APPLICATIONS**

- Designed for audio and general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-150	V
$V_{CEO}$	Collector-Emitter Voltage	-150	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-12	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	120	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~150	$^\circ\text{C}$



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

# Silicon PNP Power Transistor

# 2SA1003

## ELECTRICAL 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> = -30mA; I <sub>B</sub> = 0	-150			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = -1mA; I <sub>E</sub> = 0	-150			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = -1mA; I <sub>C</sub> = 0	-6			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -8A; I <sub>B</sub> = -0.8A			-3.0	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -150V; I <sub>E</sub> = 0			-50	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -6V; I <sub>C</sub> = 0			-50	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -5V	50		200	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = -1A ; V <sub>CE</sub> = -10V		40		MHz