

Silicon NPN Power Transistors

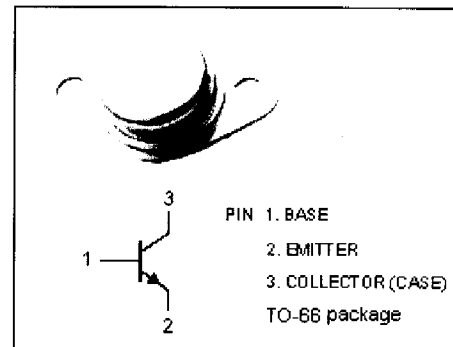
2N5604

DESCRIPTION

- DC Current Gain-
: $h_{FE} = 30-90 @ I_C = 1A$
- Wide Area of Safe Operation
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 100V(\text{Min})$
- Complement to Type 2N5603

APPLICATIONS

- Designed for use in high frequency power amplifiers, audio power amplifier and drivers.

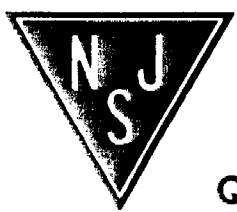
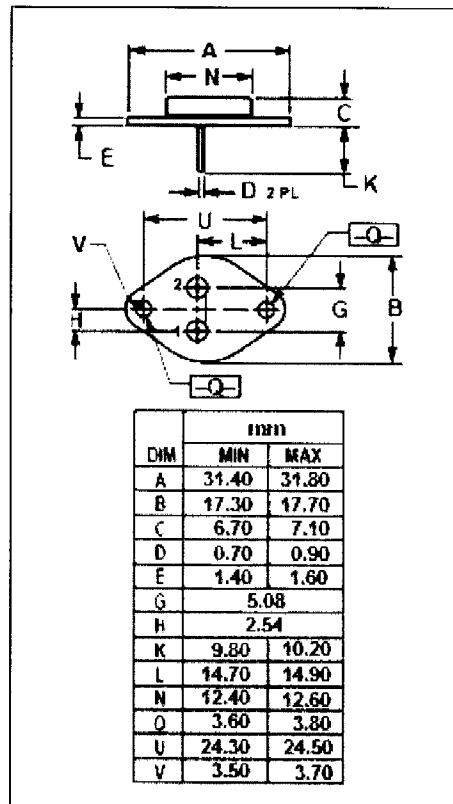


ABSOLUTE MAXIMUM RATINGS ($T_a = 25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	20	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Thermal Resistance, Junction to Case	4.37	$^\circ\text{C/W}$



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Silicon NPN Power Transistors**2N5604****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}; I_B=0$	100		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}; I_B=0.1\text{A}$		1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=1\text{A}; V_{CE}=5\text{V}$		1.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=80\text{V}; I_B=0$		1.0	mA
I_{CBO}	Collector Cutoff Current	$V_{CB}=100\text{V}; I_E=0$		0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$		0.1	mA
h_{FE}	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	30	90	
f_T	Current-Gain—Bandwidth Product	$I_C=0.5\text{A}; V_{CE}=10\text{V}$	50		MHz