

Silicon PNP Power Transistor

2SA1166

DESCRIPTION

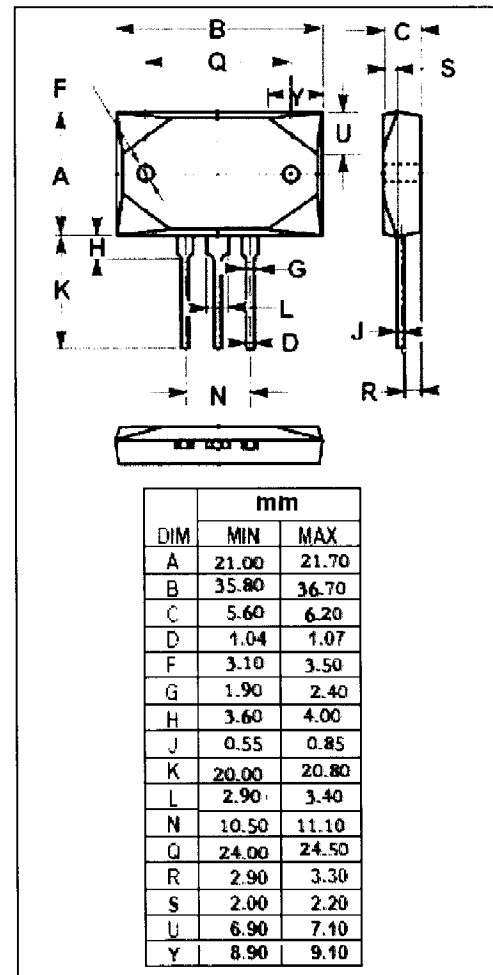
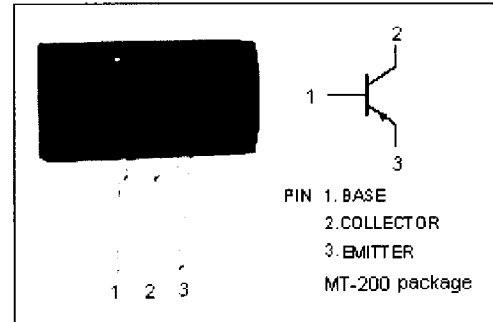
- Collector-Emitter Breakdown Voltage-
 $V_{(BR)CEO} = -150V(\text{Min})$
- Good Linearity of h_{FE}
- High Power Dissipation

APPLICATIONS

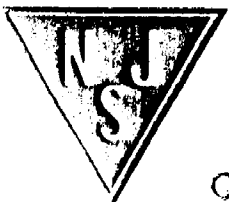
- Power amplifier applications
- Recommended for 100W high-fidelity audio frequency amplifier output stage

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-160	V
V_{CEO}	Collector-Emitter Voltage	-160	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-15	A
P_C	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	150	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=-25\text{mA}; I_B=0$	-160			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=-1\text{mA}; I_E=0$	-160			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=-1\text{mA}; I_C=0$	-5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=-5\text{A}; I_B=-0.5\text{A}$			-2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=-5\text{A}; I_B=-0.5\text{A}$			-2.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}=-150\text{V}; I_E=0$			-10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=-5\text{V}; I_C=0$			-10	μA
h_{FE}	DC Current Gain	$I_C=-2\text{A}; V_{CE}=-5\text{V}$	55		160	
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=-10\text{V}; f_{test}=1.0\text{MHz}$		320		pF
f_T	Current-Gain—Bandwidth Product	$I_C=-1\text{A}; V_{CE}=-10\text{V}$		60		MHz