

SPTECH Silicon NPN Power Transistor

NJW0281G

DESCRIPTION

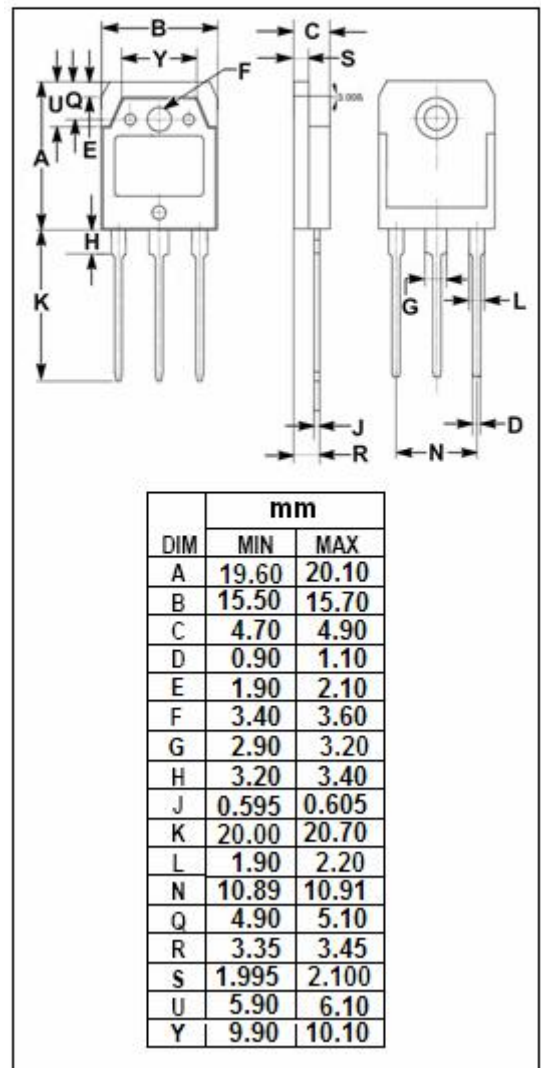
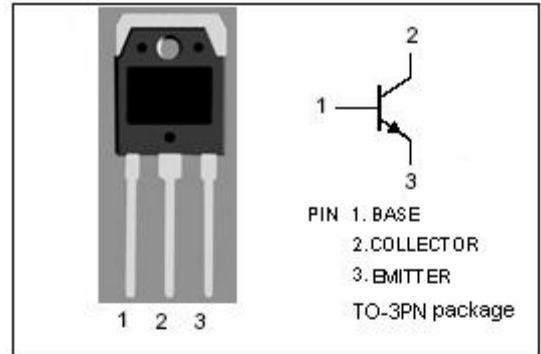
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO}=250V(\text{Min})$
- Good Linearity of h_{FE}
- Complement to Type NJW0302G

APPLICATIONS

- Designed for high fidelity audio amplifier and other linear applications

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	250	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current-Continuous	1.5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	150	W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature Range	-65~150	°C



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	$I_C = 30\text{mA}; I_B = 0$	250			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 5.0\text{A}; I_B = 0.5\text{A}$			1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = 5.0\text{A}, V_{CE} = 5.0\text{V}$			1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 250\text{V}; I_E = 0$			10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 5\text{V}; I_C = 0$			5	μA
h_{FE}	DC Current Gain	$I_C = 0.5\text{A}; V_{CE} = 5\text{V}$	75		150	
h_{FE1}	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 5\text{V}$	75		150	
h_{FE2}	DC Current Gain	$I_C = 3\text{A}; V_{CE} = 5\text{V}$	75		150	
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = 10\text{V}; f_{test} = 1.0\text{MHz}$			700	pF
f_T	Current-Gain—Bandwidth Product	$I_C = 1\text{A}; V_{CE} = 5\text{V}; f_{test} = 1.0\text{MHz}$	20			MHz