

SPTECH Silicon NPN Power Transistor

NJW3281G

DESCRIPTION

- With TO-3PN packaging
- Reliable performance at higher powers
- Accurate reproduction of Input signal
- Greater dynamic range
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

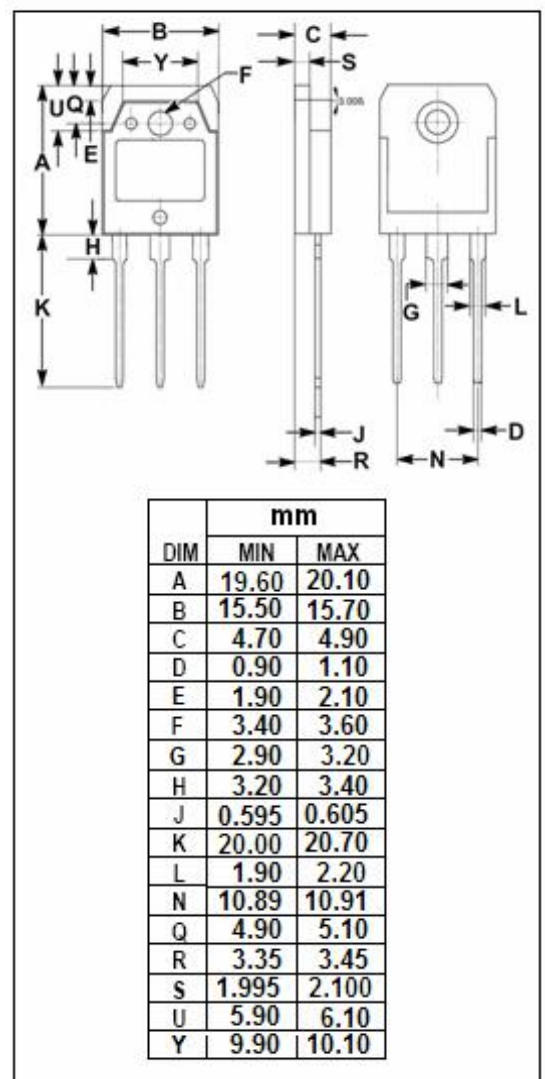
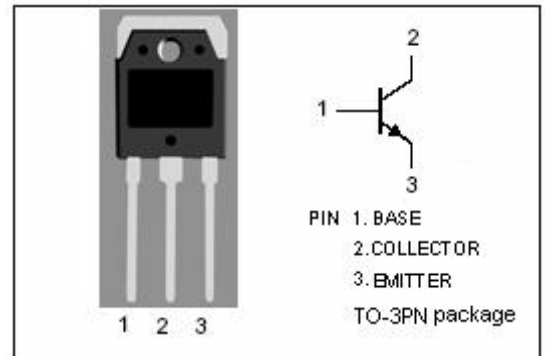
- Switching regulators
- High frequency inverters
- General purpose power amplifiers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	250	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{CEX}	Collector-Emitter Voltage $V_{\text{EB}}=5\text{V}$	250	V
V_{EBO}	Emitter-Base Voltage	5	V
I_{C}	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	30	A
I_{B}	Base Current-Continuous	1.6	A
P_{T}	Total Power Dissipation @ $T_{\text{C}}=25^{\circ}\text{C}$	200	W
T_{J}	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{\text{th j-c}}$	Thermal Resistance, Junction to Case	0.63	$^{\circ}\text{C/W}$



ELECTRICAL CHARACTERISTICS**T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 100mA; I _B = 0	250			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 8A; I _B = 0.8A			0.6	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 8A; V _{CE} = 5V			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 250V			50	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 250V			50	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V			5	mA
h _{FE-1}	DC Current Gain	I _C = 0.1A; V _{CE} = 5V	75		150	
h _{FE-2}	DC Current Gain	I _C = 1A; V _{CE} = 5V	75		150	
h _{FE-3}	DC Current Gain	I _C = 3A; V _{CE} = 5V	75		150	
h _{FE-4}	DC Current Gain	I _C = 5A; V _{CE} = 5V	60			
h _{FE-5}	DC Current Gain	I _C = 8A; V _{CE} = 5V	45			