

# isc Silicon NPN Power Transistors

# NJW44H11G

### 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

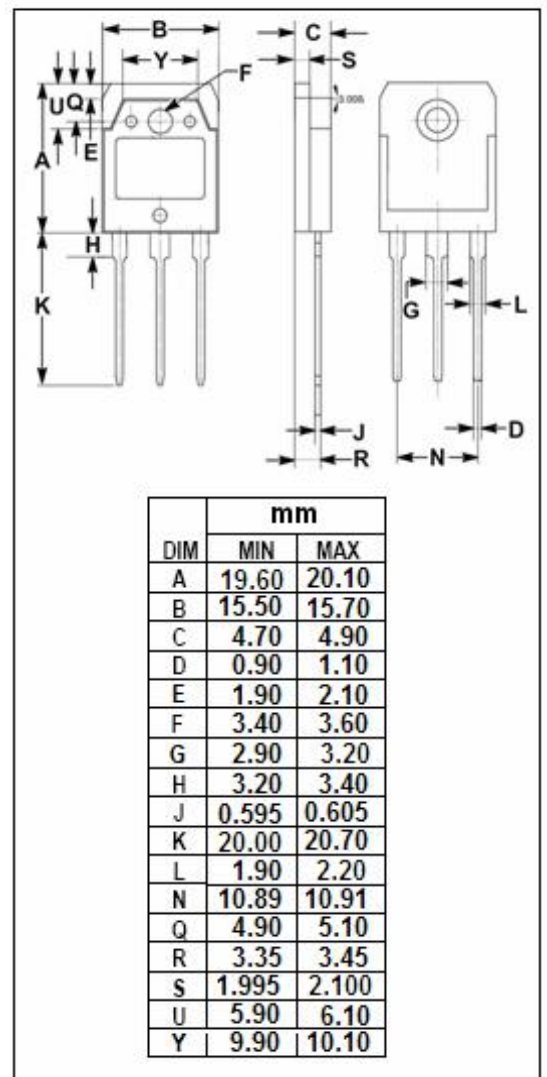
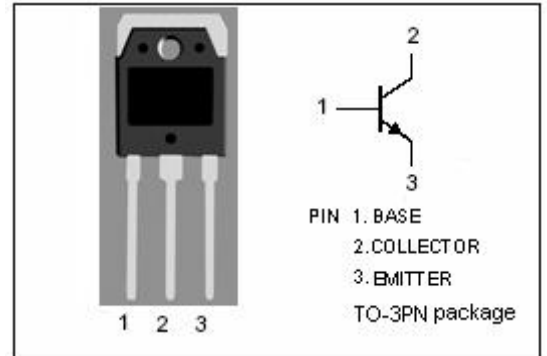
- Switching regulators
- High frequency inverters
- General purpose power amplifiers

### ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	80	V
V <sub>CEO</sub>	Collector-Emitter Voltage	80	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current-Continuous	10	A
I <sub>CM</sub>	Collector Current-Peak	20	A
P <sub>T</sub>	Total Power Dissipation @ T <sub>C</sub> =25°C	120	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-65~150	°C

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.04	°C/W



**isc Silicon NPN Power Transistors****NJW44H11G****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE0(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}; I_B=0$	80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=8\text{A}; I_B=0.4\text{A}$			1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=8\text{A}; V_{CE}=2\text{V}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=80\text{V}$			10	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=80\text{V}$			10	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}$			10	mA
$h_{FE-1}$	DC Current Gain	$I_C=2\text{A}; V_{CE}=2\text{V}$	100		400	
$h_{FE-2}$	DC Current Gain	$I_C=4\text{A}; V_{CE}=2\text{V}$	80		320	