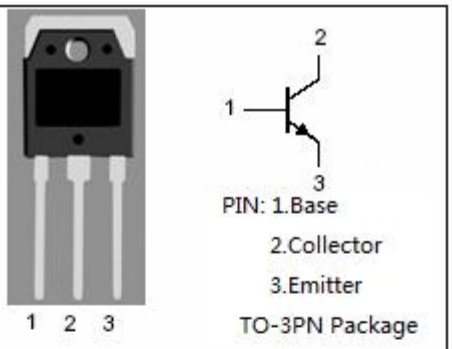
isc Silicon NPN Power Transistor NJW21194G

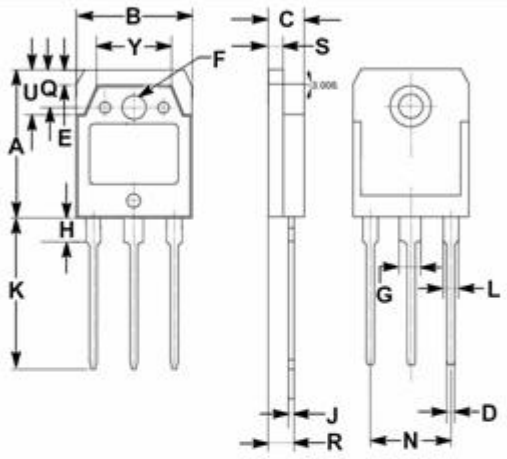
DESCRIPTION

- Large collector current
- Low collector saturation voltage
- High power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for use in DC-DC converter
- Driver of solenoid or motor
- For audio amplifier applications



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	30	A
I_B	Base Current	5	A
P_C	Collector Power Dissipation@T_C=25℃	200	W
T_J	Junction Temperature	-65~150	℃
T_{stg}	Storage Temperature	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	0.625	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 30mA; I_B= 0	250		V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 1mA; I_E= 0	400		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	5.0		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C=8A; I_B= 0.8A		1.4	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C=16A; I_B= 3.2A		4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C=8A; V_{CE}= 5V		2.2	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 250V; I_B=0		0.1	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 400V; I_E=0		0.1	mA
h_{FE-1}	DC Current Gain	I_C= 8A; V_{CE}= 5V	20	80	
h_{FE-2}	DC Current Gain	I_C= 16A; V_{CE}= 5V	8		