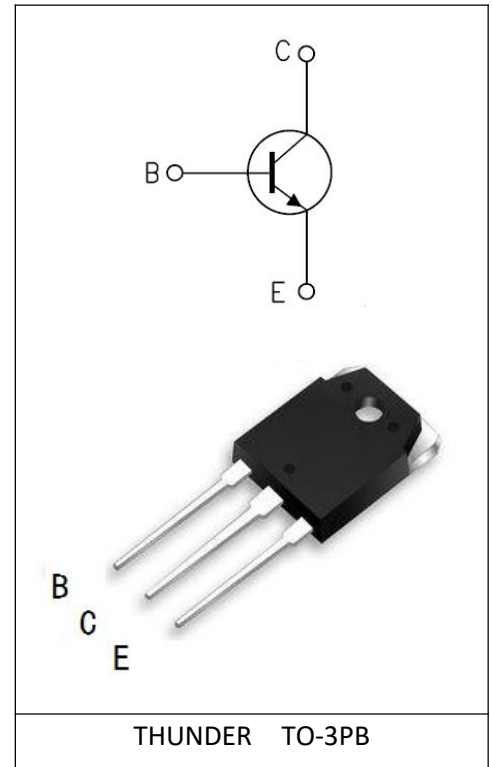


### Power Amplifier Applications

- Complementary to NJW21193G
- High collector voltage:  $V_{CEO}=250V$  (min)
- Recommended for 100-W high-fidelity audio frequency amplifier Output stage

Note1: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.



### Absolute Maximum Ratings( $T_c=25^{\circ}C$ ):

Characteristics	Symbol	Rating	Unit
Collector-base voltage	$V_{CBO}$	400	V
Collector-emitter voltage	$V_{CEO}$	250	V
Emitter-base voltage	$V_{EBO}$	5	V
Collector current	$I_C$	16	A
Base current	$I_B$	5	A
Collector power dissipation( $T_c=25^{\circ}C$ )	$P_C$	200	W
Junction temperature	$T_j$	150	$^{\circ}C$
Storage temperature range	$T_{STG}$	-55~150	$^{\circ}C$

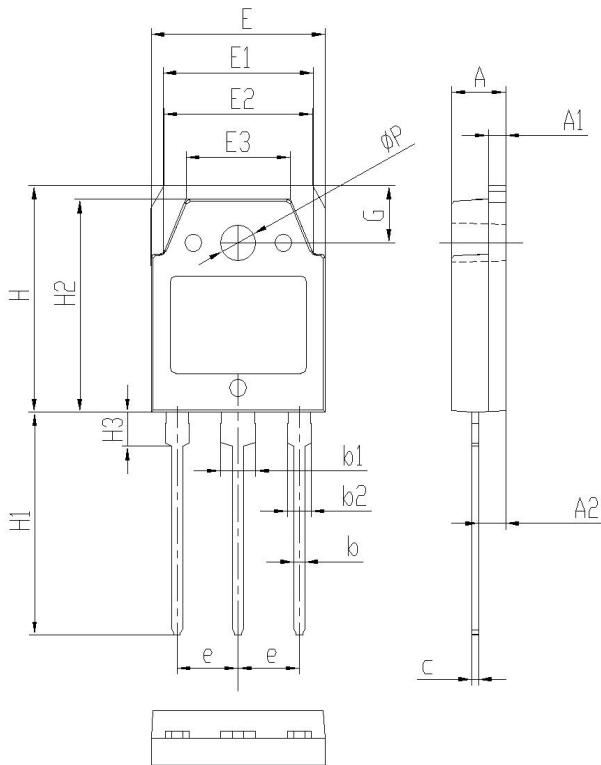
**Electrical Characteristics (T<sub>c</sub>=25°C):**

Characteristics	Symbol	Test Condition	Min	Typ	Max	Unit
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =250V; I <sub>E</sub> =0			10	uA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =5V; I <sub>C</sub> =0			10	uA
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =50mA, I <sub>B</sub> =0	250			V
Dc current gain	h <sub>FE</sub>	V <sub>CE</sub> =5V; I <sub>C</sub> =8A;	20		80	
	h <sub>FE(2)</sub>	V <sub>CE</sub> =5V; I <sub>C</sub> =16A;	8			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =8A; I <sub>B</sub> =0.8A			1.4	V
	V <sub>CE(sat)</sub>	I <sub>C</sub> =16A; I <sub>B</sub> =3.2A			4	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> =5V; I <sub>C</sub> =8A			2.2	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V; I <sub>C</sub> =1A	4			MHz

Symbol	Parameter	Typ	Units
R <sub>θJC</sub>	Junction-to-Case	0.63	°C/W

### Package Information

#### TO-3PB PACKAGE



Symbol	UNIT(mm)		
	Min.	Typ.	Max.
A	4.60	4.80	5.00
A1	1.3	1.5	1.7
A2	2.20	2.40	2.60
b	0.80	1.0	1.20
b1	2.90	3.10	3.30
b2	1.80	2.00	2.20
c	0.50	0.60	0.70
e	5.25	5.45	5.65
E	15.2	15.6	16.0
E1	13.2	13.4	13.6
E2	15.1	15.3	16.5
E3	9.1	9.3	9.5
H	19.8	20.0	20.2
H1	19.0	19.5	20.0
H2	18.3	18.5	18.7
H3	2.8	3.0	3.2
G	4.8	5.0	5.2
ΦP	3.00	3.20	3.40