

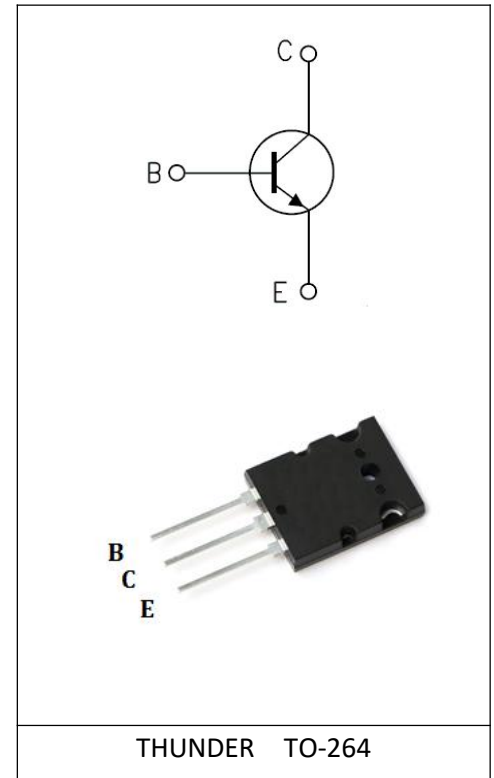
Minos Silicon NPN Triple Diffused Type

MJL21194

Power Amplifier Applications

- Complementary to MJL21193
- 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.



THUNDER TO-264

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	$^{\circ}C$

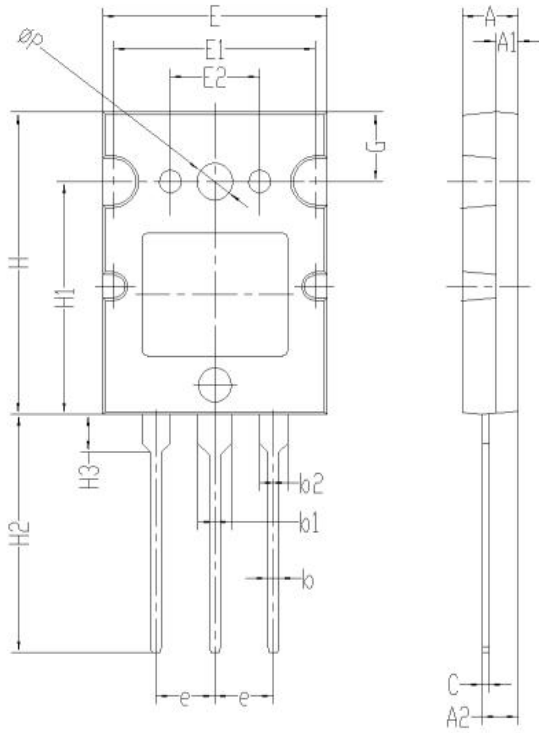
Electrical Characteristics (Tc=25°C):

Characteristics	Symbol	Test Condition	Min	Typ	Max	Unit
Collector cut-off current	I _{CBO}	V _{CB} =250V; I _E =0			10	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V; I _C =0			10	μA
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =50mA, I _B =0	250			V
Dc current gain	h _{FE}	V _{CE} =5V; I _C =8A;	20		80	
	h _{FE(2)}	V _{CE} =5V; I _C =16A;	8			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =8A; I _B =0.8A			1.4	V
	V _{CE(sat)}	I _C =16A; I _B =3.2A			4	V
Base-emitter voltage	V _{BE}	V _{CE} =5V; I _C =8A			2.2	V
Transition frequency	f _T	V _{CE} =10V; I _C =1A	4			MHz

Symbol	Parameter	Typ	Units
R _{θJC}	Junction-to-Case	0.63	°C/W

Package Information

TO-264 PACKAGE



Symbol	Dimensions (millimeters)	
	Min.	Max.
A	4.80	5.20
A1	1.80	2.20
A2	3.00	3.40
b	0.80	1.20
b1	2.80	3.20
b2	2.30	2.70
c	0.40	0.80
e	5.25	5.65
E	19.8	20.2
E1	17.8	18.2
E2	7.8	8.2
H	25.8	26.2
H1	19.8	20.2
H2	20.0	21.0
H3	3.05	3.45
G	5.80	6.20
φP	3.10	3.50
J	4.80	5.20
K	1.80	2.20

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