

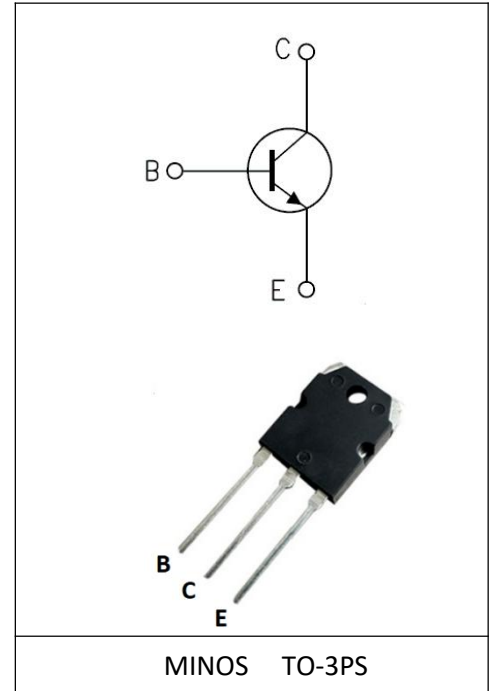
Minos Silicon NPN Triple Diffused Type

2SC5198

Power Amplifier Applications

- Complementary to 2SA1941
- High collector voltage: $V_{CEO}=140V$ (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($T_c=25^{\circ}C$):

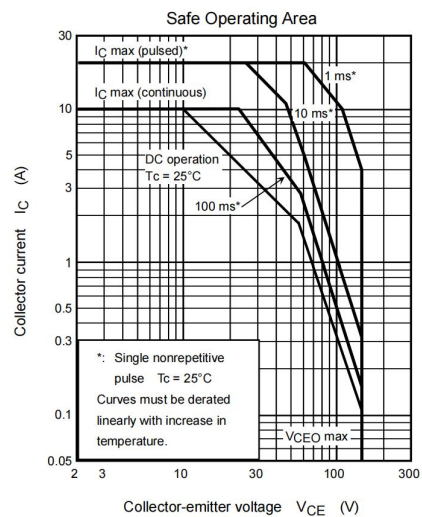
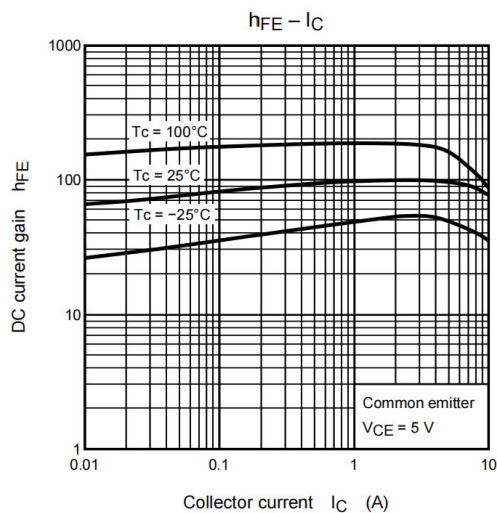
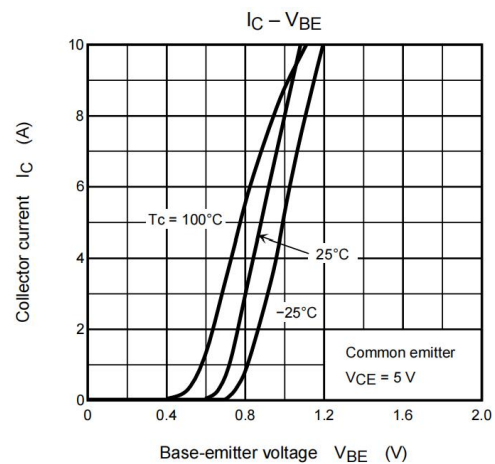
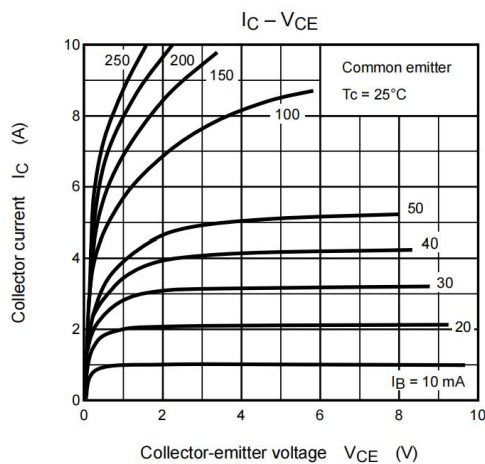
Characteristics	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	140	V
Collector-emitter voltage	V_{CEO}	140	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_c	10	A
Base current	I_B	1	A
Collector power dissipation($T_c=25^{\circ}C$)	P_c	100	W
Junction temperature	T_j	150	$^{\circ}C$
Storage temperature 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}	$V_{CB}=140V; I_E=0$			5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5V; I_C=0$			5	μA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	140			V
Dc current gain	h_{FE}	$V_{CE}=5V; I_C=1A;$	55		160	
	$h_{FE(2)}$	$V_{CE}=5V; I_C=5A;$	35	83		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=8A; I_B=0.8A$			3.0	V
Base-emitter voltage	V_{BE}	$V_{CE}=5V; I_C=5A$			1.5	
Transition frequency	f_T	$V_{CE}=5V; I_C=1A$		30		MHz

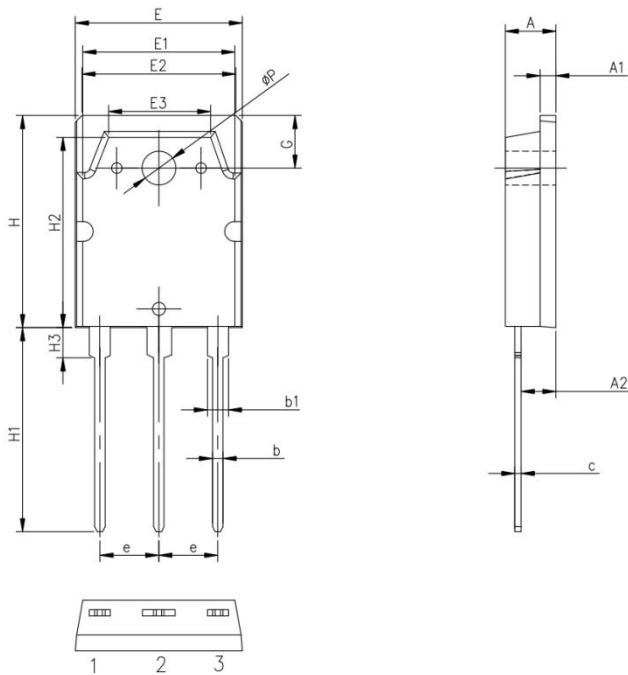
Symbol	Parameter	Typ	Units
$R_{\theta JC}$	Junction-to-Case	0.35	$^{\circ}C/W$

TYPICAL CHARACTERISTICS



Package Information

TO-3PS PACKAGE



Symbol	单位 mm		
	Min	Nom	Max
A	4.30	4.50	4.70
A1	1.3	1.5	1.7
A2	2.50	2.70	2.90
b	0.80	1.0	1.20
b1	1.80	2.00	2.20
c	0.50	0.60	0.70
e	5.25	5.45	5.65
E	15.1	15.5	15.9
E1	13.1	13.3	13.5
E2	13.2	13.4	13.6
E3	9.1	9.3	9.5
H	19.8	20.0	20.2
H1	20.0	20.5	21.0
H2	18.3	18.5	18.7
H3	2.8	3.0	3.2
G	4.30	4.50	4.70
ΦP	3.00	3.20	3.40

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