

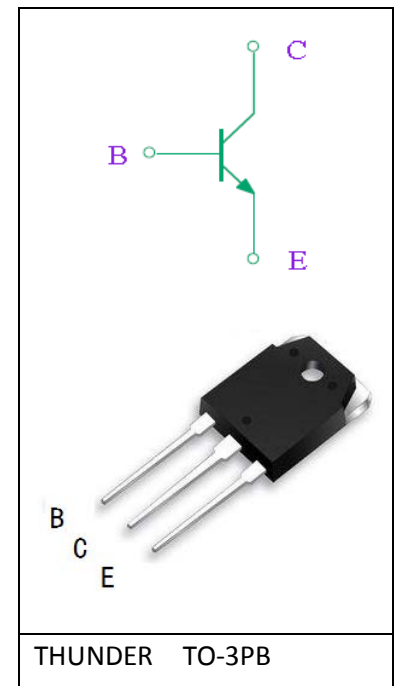
NPN TRANSISTORS

2SC3679

Features:

- High voltage switching transistor
- Power Amplifier/ Driver stage Amplifier/ Switching Applications

Note: 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-3PB

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

Characteristics		Symbol	Rating	Unit
Collector-base voltage		V_{CBO}	900	V
Collector-emitter voltage		V_{CEO}	600	V
Emitter-base voltage		V_{EBO}	7	V
Collector current		I_C	5	A
Base current		I_B	2.5	A
Collector power dissipation	$T_c=25\text{ }^\circ\text{C}$	P_C	80	W
	$T_a=25\text{ }^\circ\text{C}$		3	
Junction temperature		T_j	150	$^\circ\text{C}$
Storage temperature range		T_{STG}	-55~150	$^\circ\text{C}$

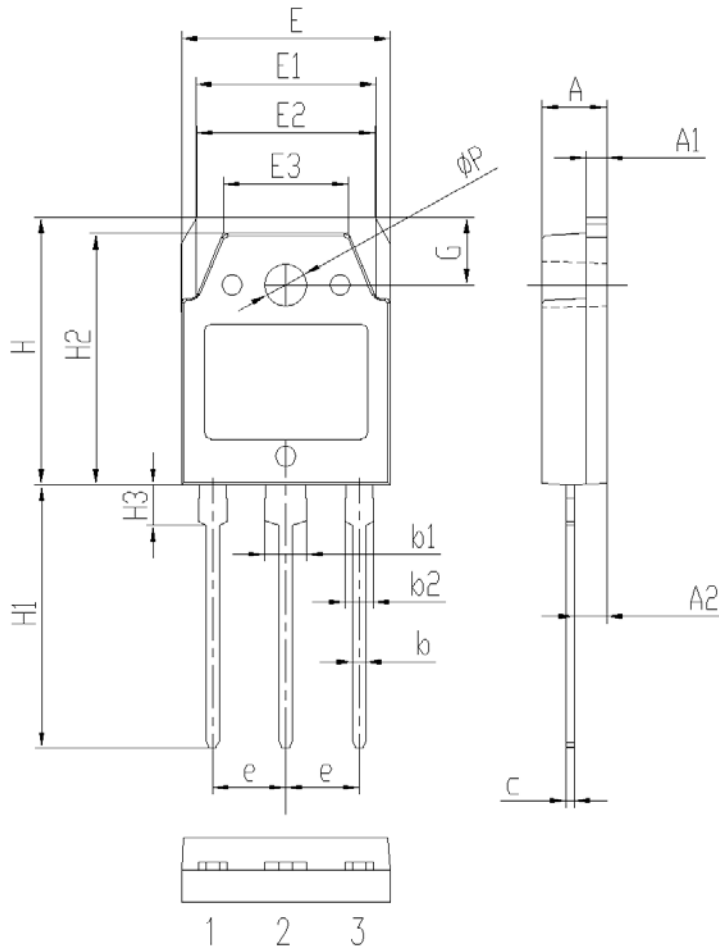
Electrical Characteristics(Tc=25 °C):

Characteristics	Symbol	Test Condition	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB}=900V;$ $I_E=0$			100	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=7V;$ $I_C=0$			100	μA
Dc current gain	h_{FE}	$I_C=1A;$ $V_{CE}=5V;$	15		30	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=3A;$ $I_B=0.5A$			1.0	V
Transition frequency	f_T	$V_{CE}=10V;$ $I_{CE}=500mA ;f=1MHZ$	4			MHZ
Switching Time	T_S	$I_C=0.5A (UI9600)$	2		5	μS

Symbol	Paramter	Typ	Units
$R_{\theta JC}$	Junction-to-Case	0.68	$^{\circ}C/W$

Package Information

TO-3PB PACKAGE



	Unit: mm		
	MIN	NOM	MAX
A	4.6	4.8	5
A1	1.3	1.5	1.7
A2	2.2	2.4	2.6
b	0.8	1	1.2
b1	2.9	3.1	3.3
b2	1.9	2.1	2.3
c	0.4	0.6	0.8
e	5.25	5.45	5.65
E	15.3	15.5	15.7
E1	13.2	13.4	13.6
E2	13.1	13.3	13.5
E3	9.1	9.3	9.5
H	19.7	19.9	20.1
H1	19.1	19.6	20.1
H2	18.3	18.5	18.7
H3	2.8	3	3.2
G	4.8	5	5.2
ϕP	3	3.2	3.4