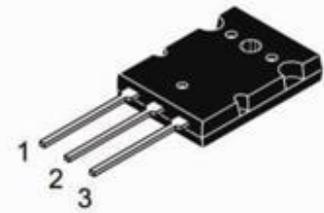


## Features

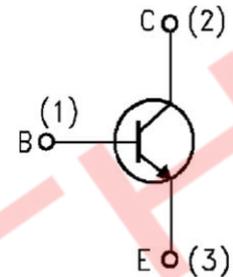
- ◆ High breakdown voltage
- ◆ High current capability
- ◆ High switching speed
- ◆ High reliability
- ◆ RoHS product
- ◆ High voltage fast-switching NPN power transistor

TO-3PL (T)



## Applications

- ◆ Energy-saving light
- ◆ Electronic ballasts
- ◆ High frequency switching power supply
- ◆ High frequency power transform
- ◆ Commonly power amplifier circuit



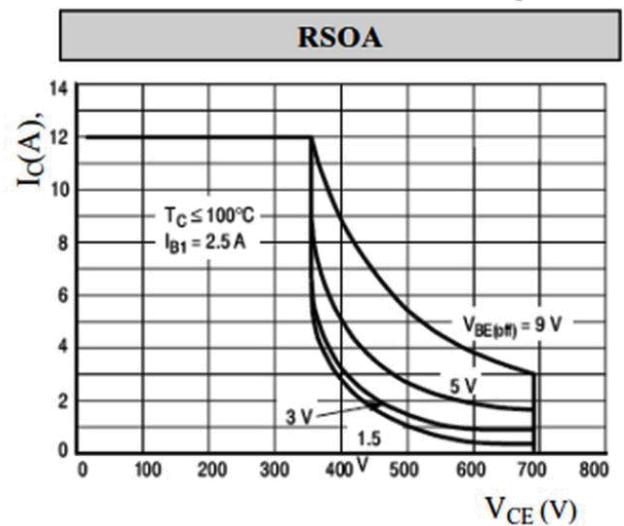
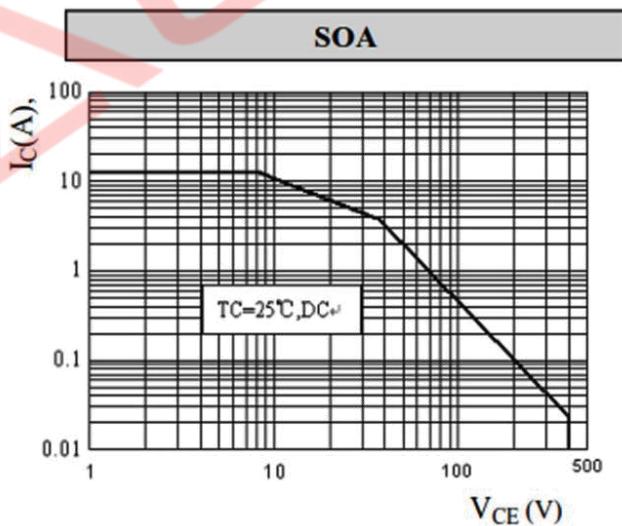
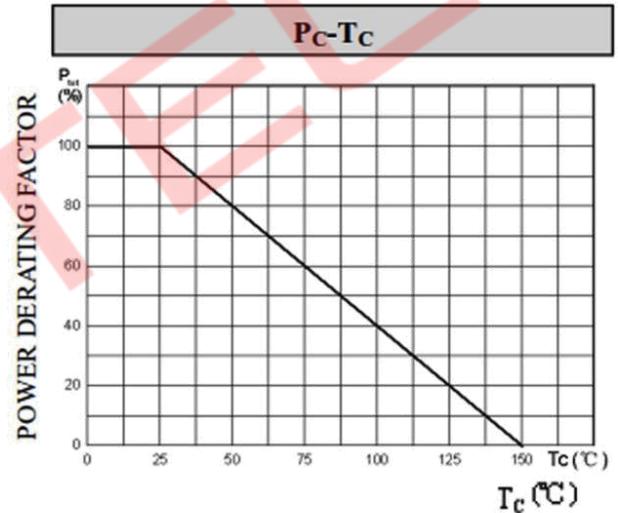
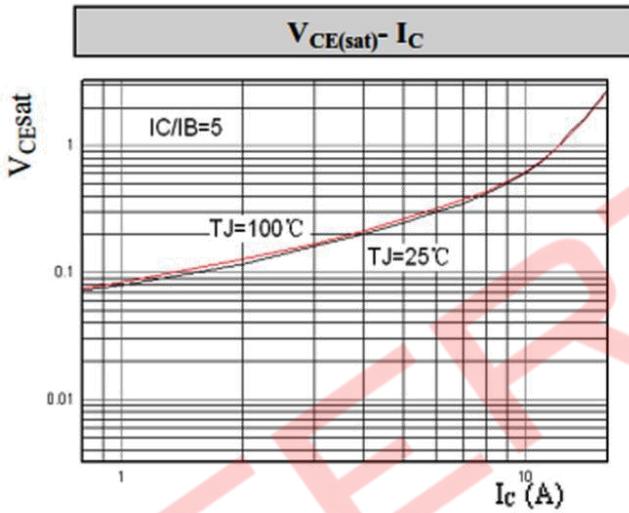
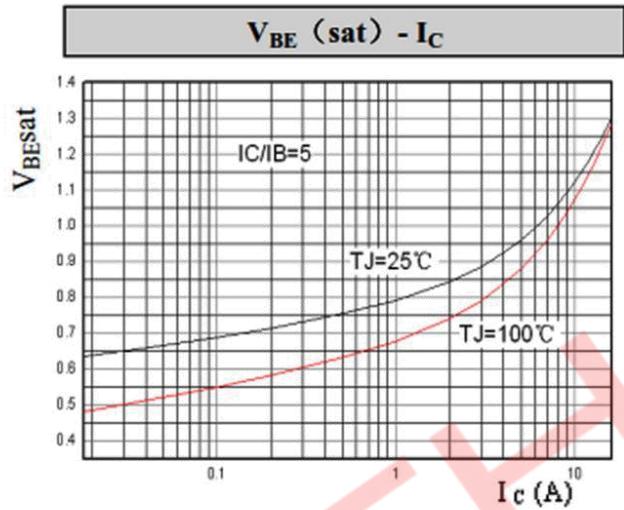
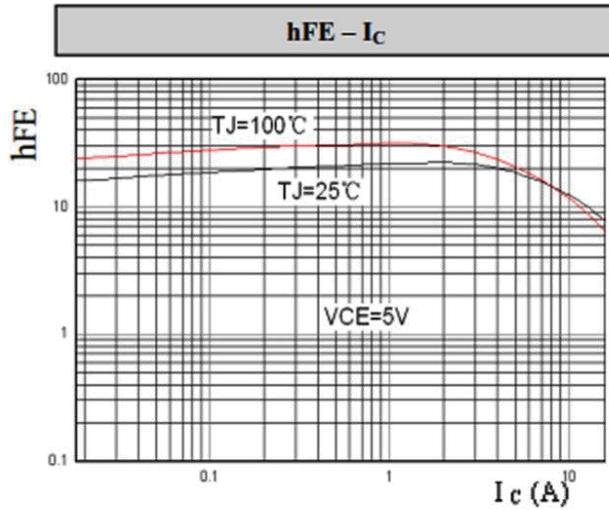
## Absolute Maximum Ratings (Ta=25°C)

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	1500	V
V <sub>CEO</sub>	Collector-Emitter Voltage	800	
V <sub>EBO</sub>	Emitter-Base Voltage	6	
I <sub>C</sub>	Collector Current	25	A
P <sub>tot</sub>	Collector Dissipation(T <sub>amb</sub> =25°C)	3	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55~+150	°C

## Electrical Characteristics (Ta=25°C unless otherwise specified)

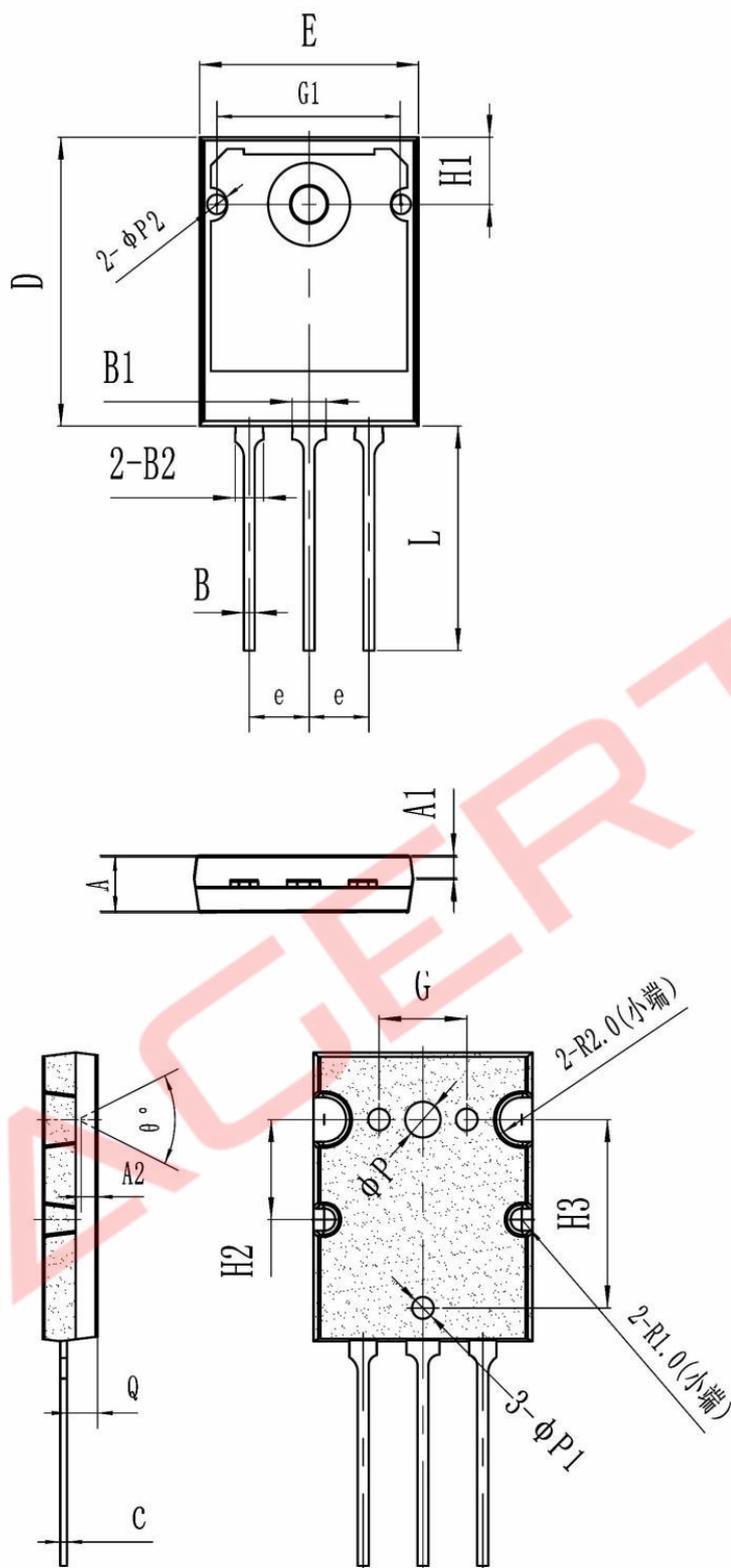
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>CBO</sub>	I <sub>C</sub> = 1mA, I <sub>B</sub> =0	1500			V
Collector-emitter breakdown voltage	V <sub>CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> =0	800			V
Emitter-base breakdown voltage	V <sub>EBO</sub>	I <sub>E</sub> = 1mA, I <sub>C</sub> =0	9			V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =1400 V, I <sub>B</sub> =0			10	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =6 V, I <sub>C</sub> =0			10	μA
DC current gain	hFE	V <sub>CE</sub> = 5V, I <sub>C</sub> = 1A V <sub>CE</sub> = 5V, I <sub>C</sub> = 18A	10 3.5		30 7	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =15A, I <sub>B</sub> = 3.75A			3	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> =15A, I <sub>B</sub> =3.75A			1.5	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =1A	1.7			MHz

Typical Characteristics Curves



## Package Outline

TO-3PL



### COMMON DIMENSIONS

SYMBOL	mm		
	MIN	NOM	MAX
A	4.90	5.00	5.10
A1	1.95	2.00	2.05
A2	1.45	1.50	1.55
B	0.95	1.00	1.05
B1	3.00	3.10	3.20
B2	2.50	2.60	2.70
C	0.58	0.60	0.62
D	25.90	26.00	26.10
E	19.85	19.95	20.05
e	5.40	5.45	5.50
G	7.90	8.00	8.10
G1	16.75	16.80	16.85
H1	6.00	6.05	6.10
H2	8.95	9.00	9.05
H3	16.80	16.90	17.00
L	20.00	20.20	20.40
Q	2.75	2.80	2.85
φP	3.15	-	3.55
φP1	1.95	2.00	2.05
φP2	1.75	1.80	1.85
θ	53.05	53.10	53.15