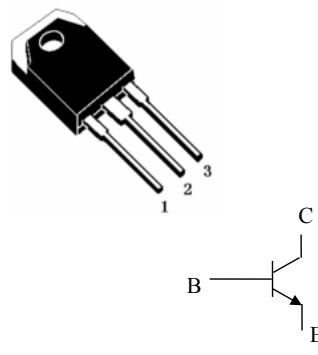


APPLICATIONS

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

FEATURES

- High breakdown voltage
- High current capability
- High switching speed
- High reliability
- RoHS product



TO-3P

ABSOLUTE RATINGS (Tc=25°C)

Parameter	Symbol	Value	Unit
Collector- Emitter Voltage ($V_{BE}=0$)	V_{CES}	700	V
Collector- Emitter Voltage ($I_B=0$)	V_{CEO}	400	V
Emitter-Base Voltage	V_{EBO}	9	V
Collector Current (DC)	I_C	12	A
Collector Current (pulse)	I_{CP}	24	A
Base Current (DC)	I_B	6	A
Base Current (pulse)	I_{BP}	12	A
Total Dissipation	P_c	120	W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C

Pulse Test: Pulse Width = 5.0 ms, Duty Cycle < 10%.

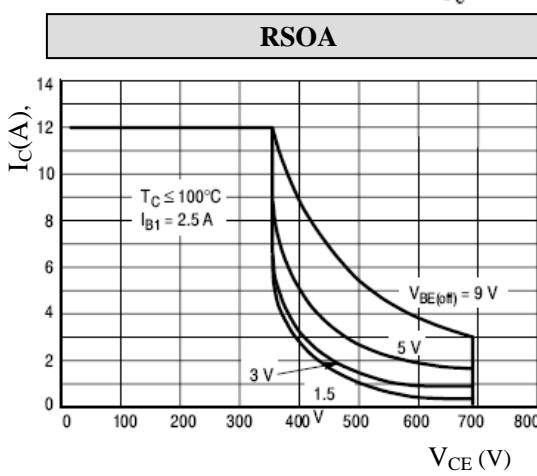
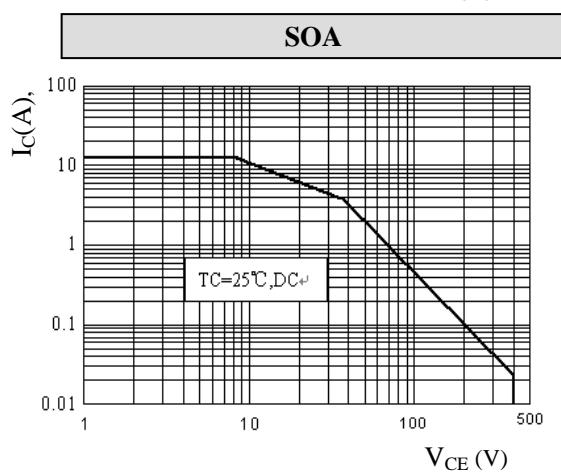
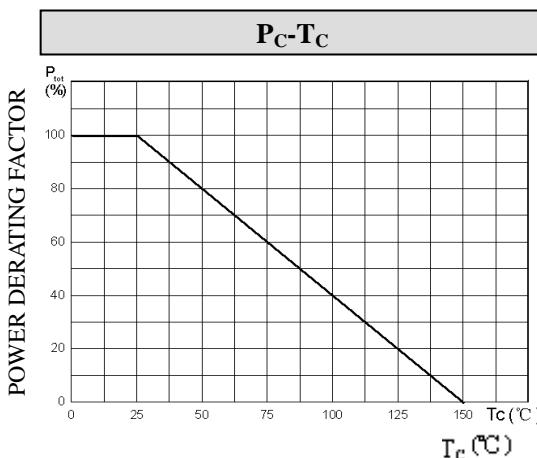
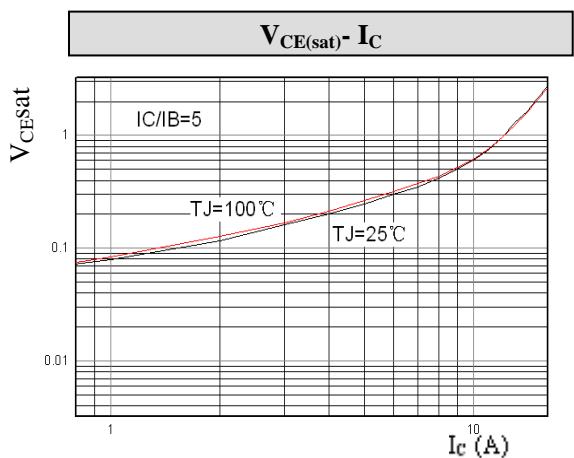
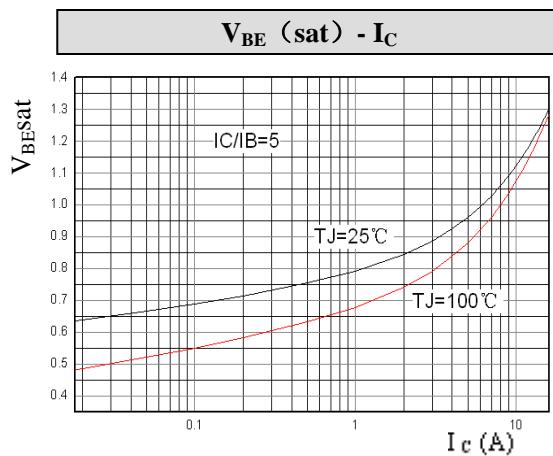
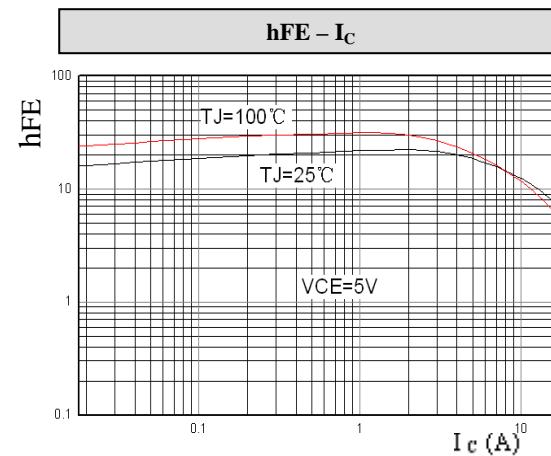
ELECTRICAL CHARACTERISTIC

Parameter	Tests conditions	Value(min)	Value(typ)	Value(max)	Unit
$V(BR)_{CEO}$	$I_C=10mA, I_B=0$	400	-	-	V
$V(BR)_{CBO}$	$I_C=1mA, I_B=0$	700	-	-	V
$V(BR)_{EBO}$	$I_E=1mA, I_C=0$	9	-	-	V
I_{CBO}	$V_{CB}=700V, I_E=0$	-	-	100	µA
I_{CEO}	$V_{CE}=400V, I_B=0$	-	-	50	µA
I_{EBO}	$V_{EB}=9V, I_C=0$	-	-	10	µA
$Hfe(1)$	$V_{CE} =5V, I_C=5A$	8	-	40	
$Hfe(2)$	$V_{CE} =5V, I_C=8A$	5	-	-	
$V_{CE(sat)}(1)$	$I_C=5A, I_B=1A$	-	-	1.2	V
$V_{CE(sat)}(2)$	$I_C=8A, I_B=1.6A$	-	-	1.8	V
$V_{BE(sat)}$	$I_C=8A, I_B=1.6A$	-	-	1.8	V
t_f	$V_{CC}=24V \quad I_C=5A, I_{B1}=-I_{B2}=1A$	-	-	0.7	µS
t_s		-	-	3	µS
f_T	$V_{CE}=10V, I_C=0.5A$	4	-	-	MHz

THERMAL CHARACTERISTICS

Parameter	Symbol	Value(min)	Value(max)	Unit
Thermal resistance from junction to case	R _{th(j-c)}		1.05	°C/W

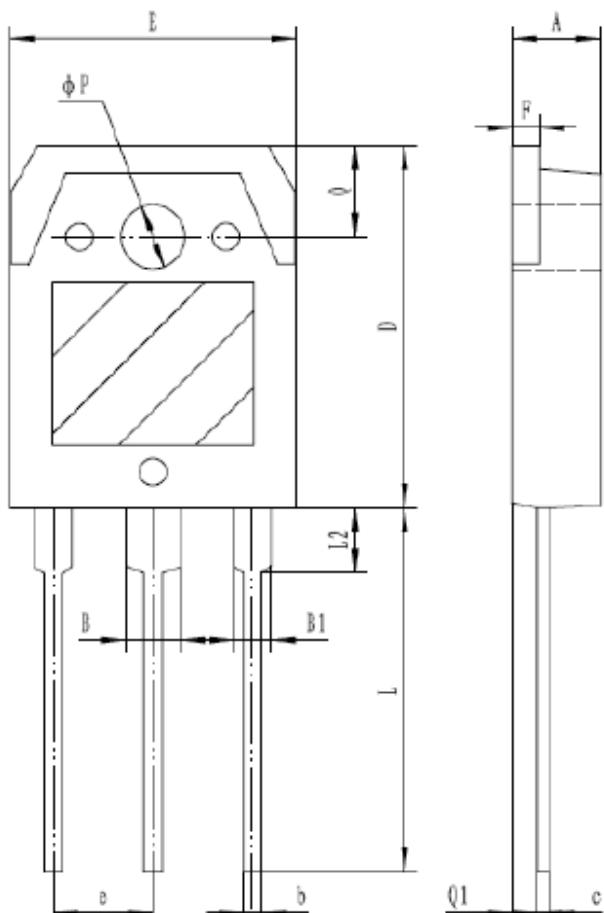
ELECTRICAL CHARACTERISTICS (curves)



PACKAGE MECHANICAL DATA

Unit : mm

TO-3PB



符号 symbol	MIN	MAX
A	4.60	5.00
B	2.90	3.20
B1	1.90	2.20
b	0.90	1.10
c	0.50	0.70
D	19.40	20.40
E	15.40	15.80
e	5.45(TYP)	
F	1.40	1.60
L	19.50	20.50
L2	3.30	3.70
Q	4.90	5.10
Q1	1.30	1.50
P	3.10	3.50

