KODENSHI AUK

STA3360PI

PNP Silicon Transistor

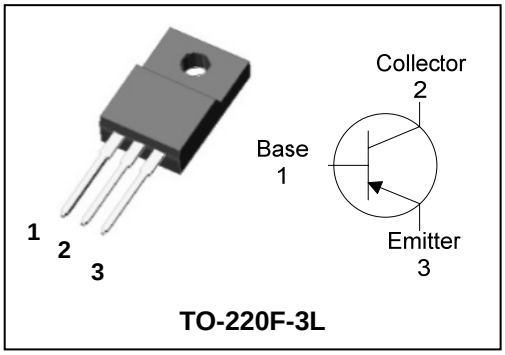
Applications

- Power amplifier application
- High current switching application

Features

- Low saturation voltage
  : $V_{CE(sat)}$=-0.15V Typ. @ I_C=-1A, I_B=-50mA
- Large collector current capacity: I_C=-3A
- TO-220F-3L DIP type package

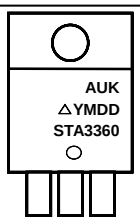
PIN Connection



Ordering Information

Type NO.	Marking	Package Code
STA3360PI	STA3360	TO-220F-3L

Marking Diagram



Column 1 : Manufacturer

Column 2 : Production Information

- △ : Factory Management Code
- YMDD : Date Code (Year, Month, Date)

Column 3 : Device Code

Absolute Maximum Ratings

[Ta=25℃]

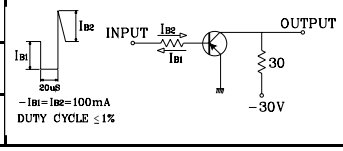
Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	-60	V
Collector-emitter voltage	V_{CEO}	-60	V
Emitter-base voltage	V_{EBO}	-6	V
Collector current	I_C	-3	A(DC)
	I_{CP}*	-6	A(Pulse)
Collector Power dissipation(T_C=25°C)	P_C	15	W
Junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-55~150	°C

* : Single pulse, tp= 300 μs

Characteristic		Symbol	Typ.	Max	Unit
Thermal resistance	Junction-case	$R_{th(J-C)}$	-	8.33	℃/W
	Junction-ambient	$R_{th(J-a)}$	-	62.5	

Electrical Characteristics

[Ta=25℃]

Characteristic		Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage		BV_{CEO}	I_C=-1mA, I_B=0	-60	-	-	V
Collector cut-off current		I_{CBO}	V_{CB}=-60V, I_E=0	-	-	-1	μA
Emitter cut-off current		I_{EBO}	V_{EB}=-6V, I_C=0	-	-	-1	μA
DC current gain		h_{FE}	V_{CE}=-2V, I_C=-0.5A*	120	-	240	-
		h_{FE}	V_{CE}=-2V, I_C=-2A*	40	-	-	
Collector-emitter saturation voltage		$V_{CE(sat)}$	I_C=-1A, I_B=-0.05A*	-	-	-0.35	V
Base-emitter saturation voltage		$V_{BE(sat)}$	I_C=-2A, I_B=-0.1A*	-	-0.97	-1.2	V
Transition frequency		f_T	V_{CE}=-10V, I_C=-0.05A	-	160	-	MHz
Collector output capacitance		C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	60	-	pF
Switching Time	Turn-on Time	t_{on}		-	170	-	ns
	Storage Time	t_{stg}		-	620	-	
	Fall Time	t_f		-	50	-	

*: Pulse test : t_P≤300μs, Duty cycle≤2%

Electrical Characteristic Curves

Fig. 1 P_C - T_a

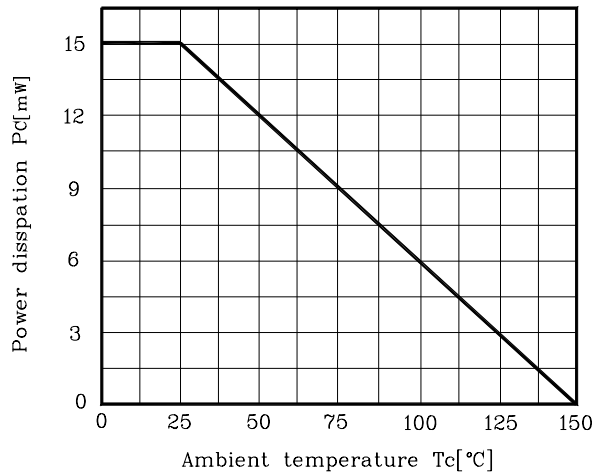


Fig. 2 I_C - $V_{BE(ON)}$

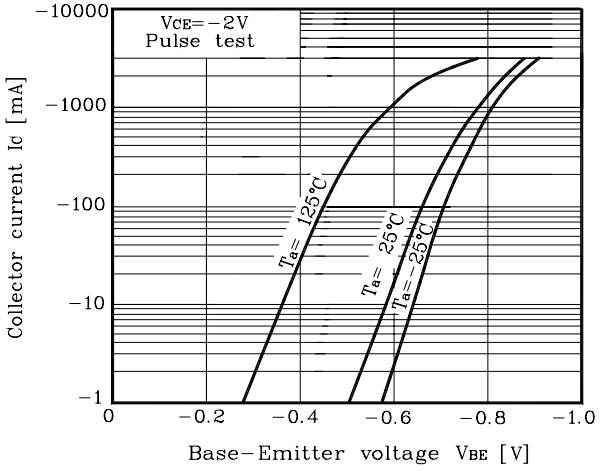


Fig. 3 I_C - V_{CE}

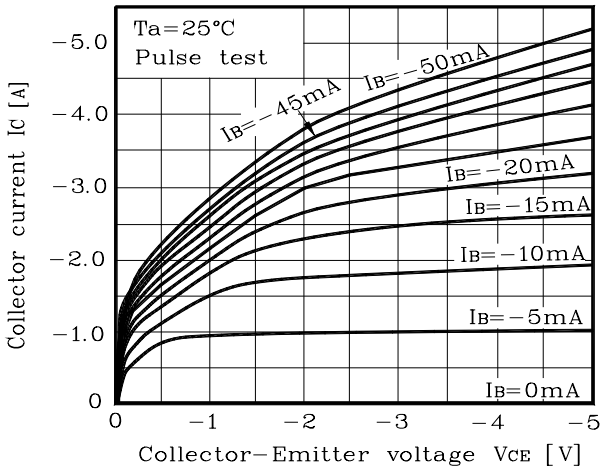


Fig. 4 h_{FE} - I_C

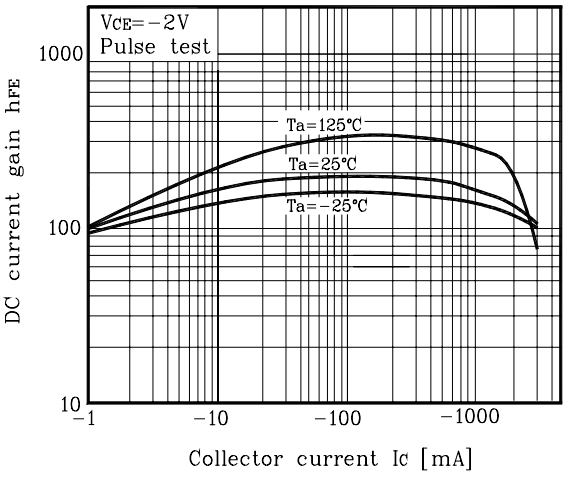


Fig. 5 $V_{CE(sat)}$ - I_C

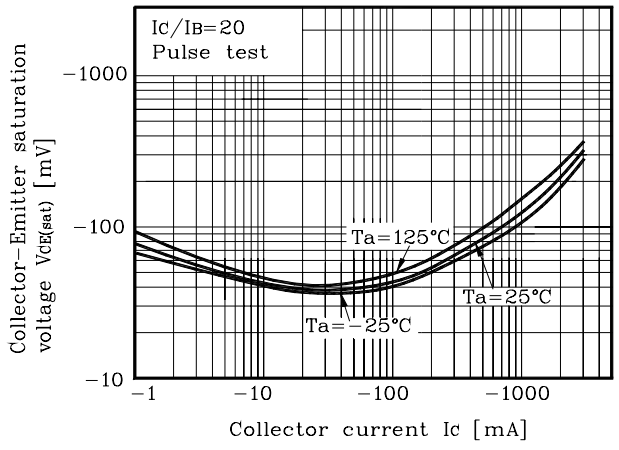
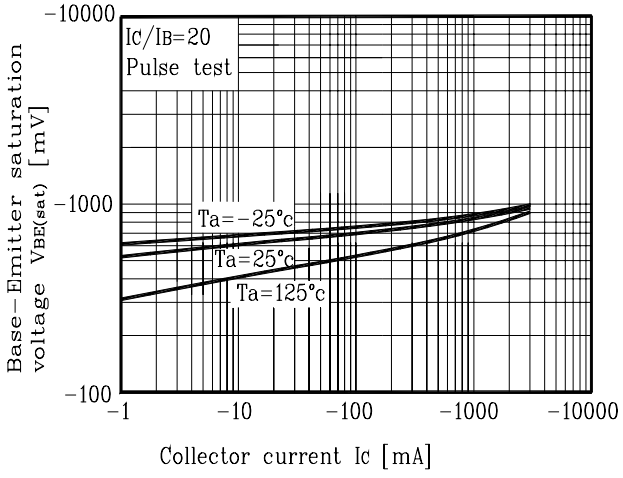


Fig. 6 $V_{BE(sat)}$ - I_C



Electrical Characteristic Curves

Fig. 7 C_{Ob} - V_{CB}

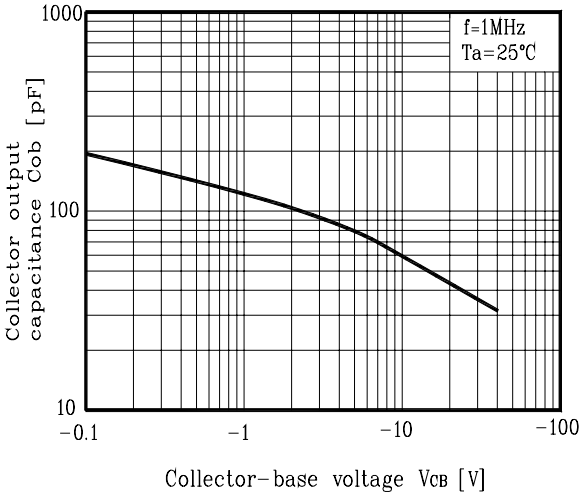
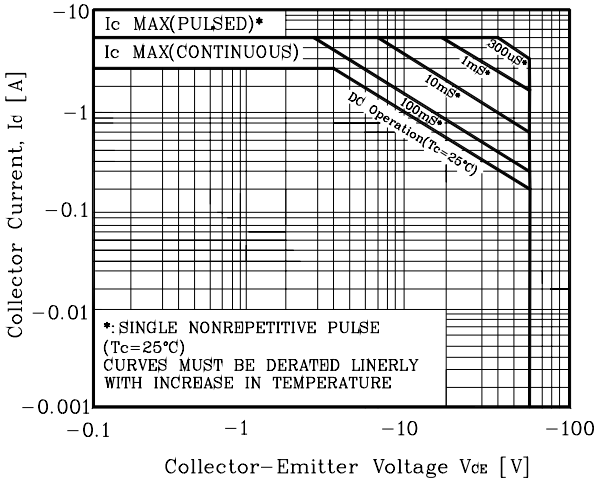
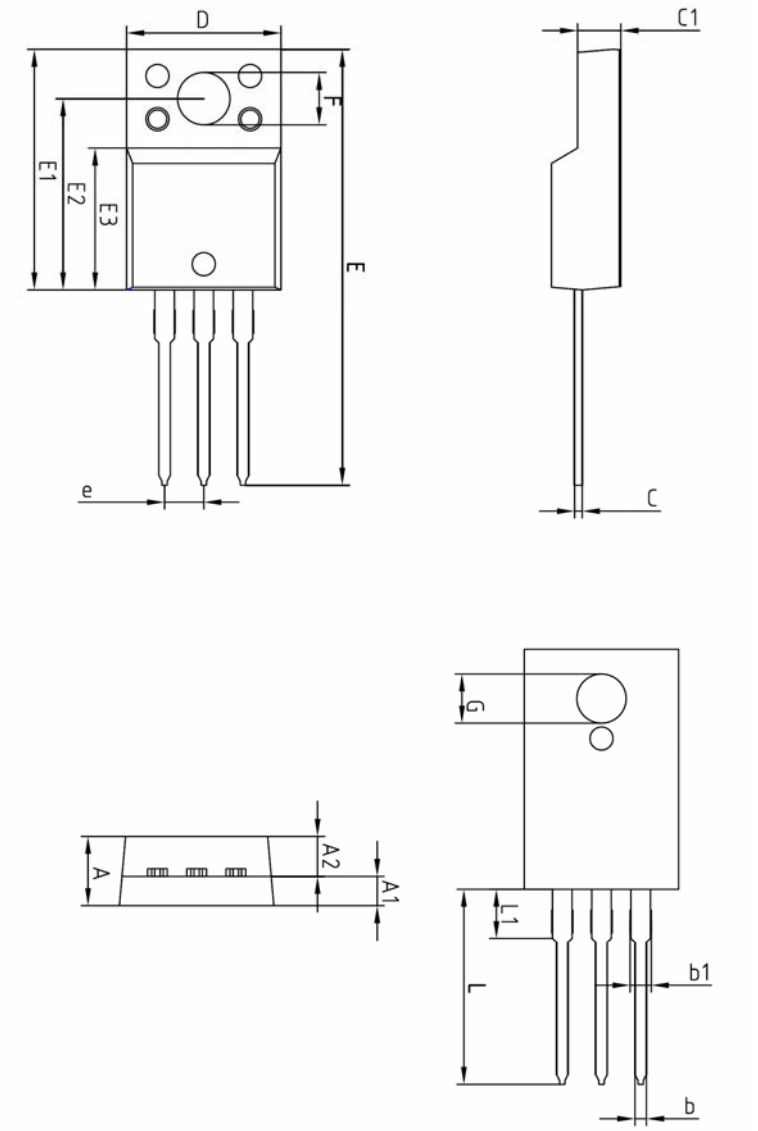


Fig. 8 Safe Operating Area



Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	–	–	4.60	
A1	2.45	2.50	2.55	
A2	1.95	2.00	2.05	
b	0.65	0.75	0.85	
b1	1.07	1.27	1.47	
C	0.40	0.50	0.60	
C1	2.70	2.80	2.90	
D	9.90	10.00	10.10	
E	28.00	–	28.60	
E1	15.50	15.60	15.70	
E2	12.30	12.40	12.50	
E3	9.15	9.20	9.25	
F	3.30	3.40	3.50	
G	3.10	3.20	3.30	
e	2.54 BSC			
L	12.40	–	13.00	
L1	3.46 BSC			

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