KODENSHI AUK

KTC4250L

NPN Silicon Transistor

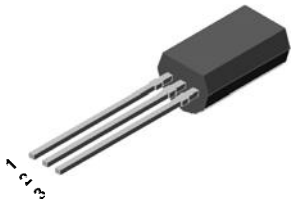
Applications

- Power amplifier application
- High current switching application

Features

- High current : I_C=2A
- Complementary pair with KTA3250L

PIN Connection



TO -92L

1: Emitter 2 :Collector 3: Base

Ordering Information

Type NO.	Marking	Package Code
KTC4250L	KTC4250 YWW●	TO-92L

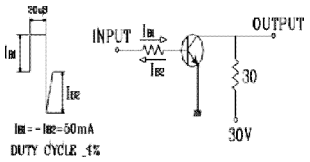
DEVICE CODE, YWW(Y : Year code, WW : Weekly code) ● Dalian

Absolute Maximum Ratings [Ta=25℃]

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	50	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	2	A
Base current	I_B	0.4	A
Collector Power dissipation	P_C	1	W
	P_C ※	2	W
Junction temperature	T_J	150	°C
Storage temperature range	T_{stg}	-55~150	°C

※ Device mounted on ceramic substrate (250mm^2 x 0.8t)

Electrical Characteristics [Ta=25℃]

Characteristic		Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-emitter breakdown voltage		BV_{CEO}	I_C=10mA, I_B=0	50	-	-	V
Collector cut-off current		I_{CBO}	V_{CB}=50V, I_E=0	-	-	0.1	μA
Emitter cut-off current		I_{EBO}	V_{EB}=5V, I_C=0	-	-	0.1	μA
DC current gain		h_{FE}	V_{CE}=2V, I_C=0.5A*	120	-	240	
		h_{FE}	V_{CE}=2V, I_C=1.5A*	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=1A, I_B=0.05A*	-	-	1.2	V
Transition frequency		f_T	V_{CE}=2V, I_C=50mA	-	240	-	MHz
Collector output capacitance		C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	15	-	pF
Switching Time	Turn-on Time	t_{on}		-	100	-	nS
	Storage Time	t_{stg}		-	300	-	
	Fall Time	t_f		-	50	-	

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

Electrical Characteristic Curves

Fig. 1 P_C - T_a

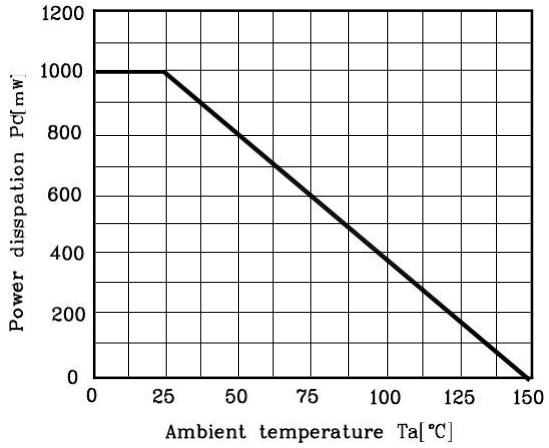


Fig. 2 I_C - V_{BE}

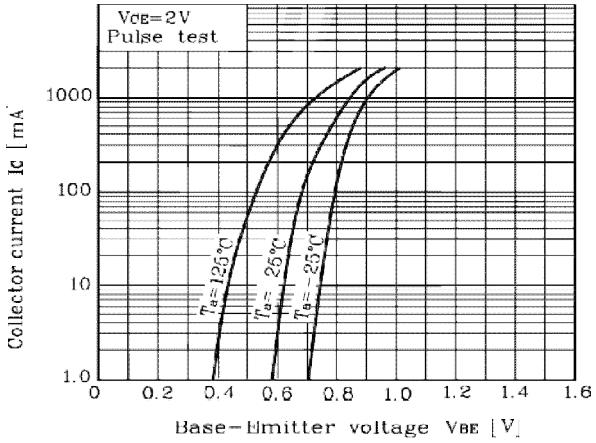


Fig. 3 I_C - V_{CE}

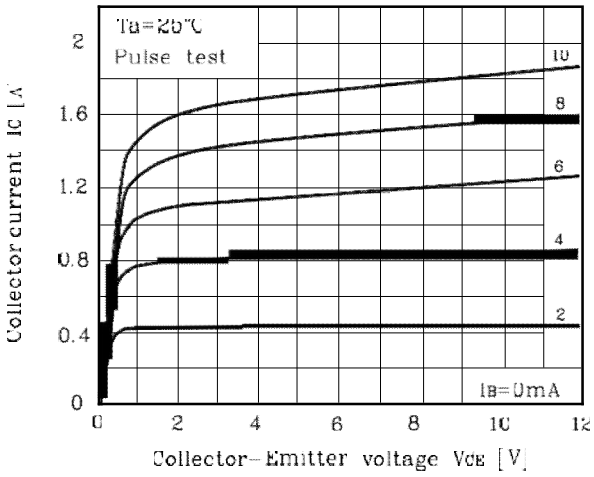


Fig. 4 h_{FE} - I_C

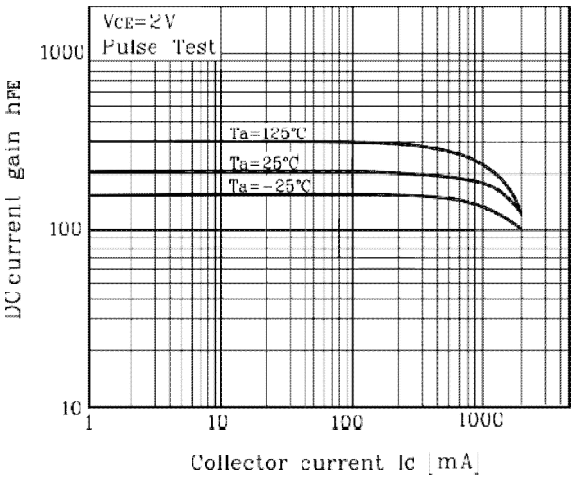


Fig. 5 $V_{CE(sat)}$ - I_C

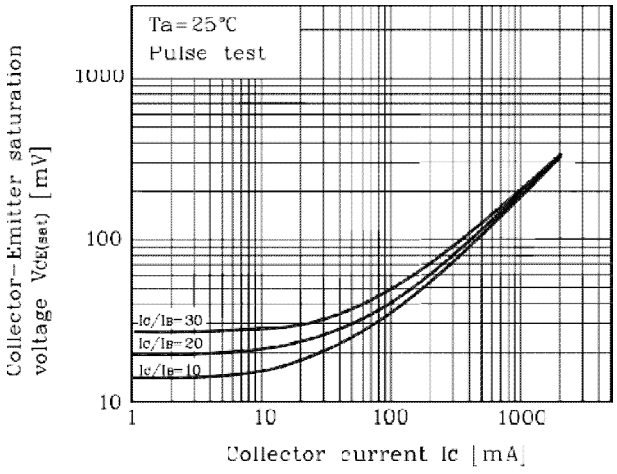
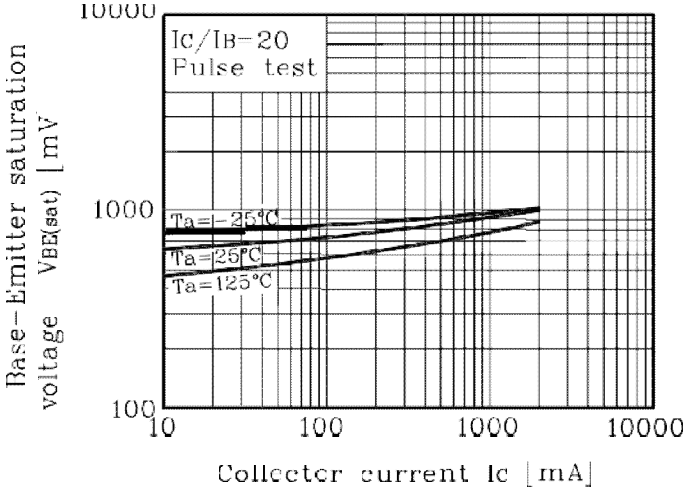


Fig. 6 $V_{BE(sat)}$ - I_C



Electrical Characteristic Curves

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

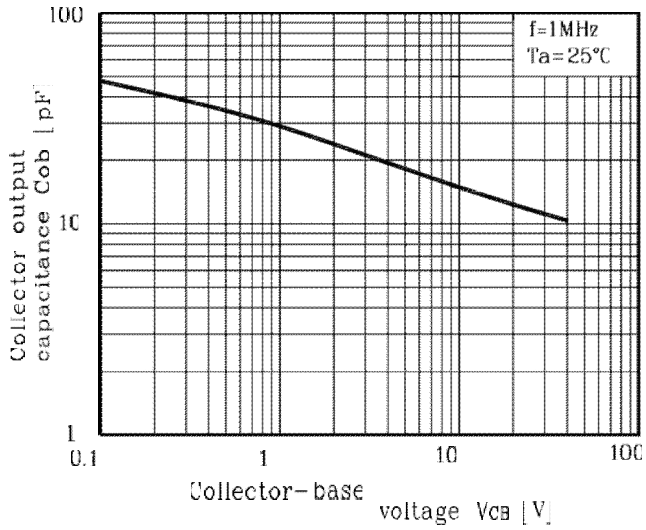
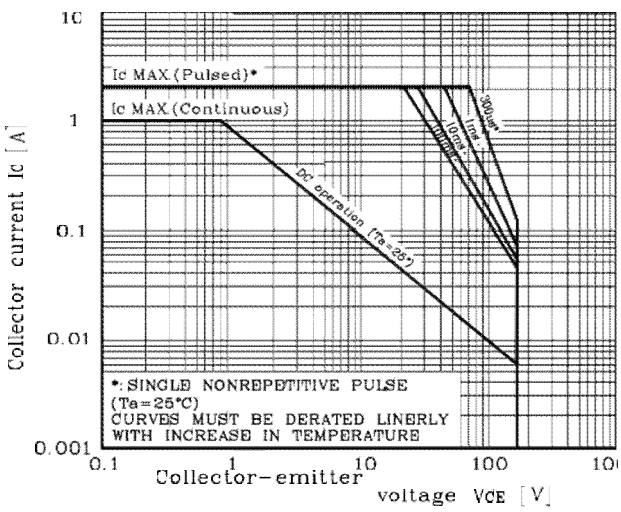
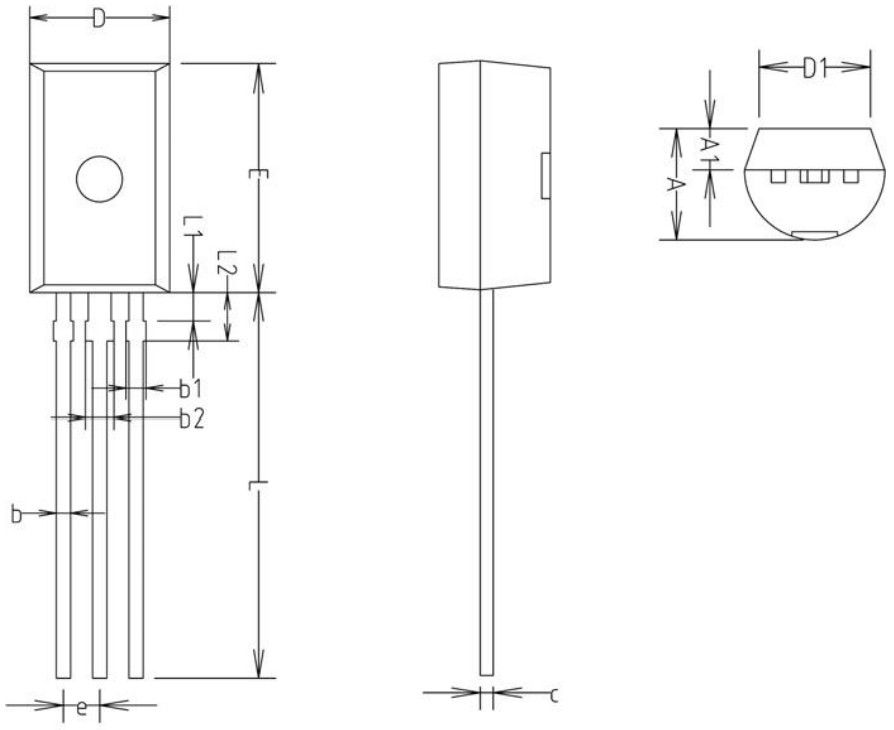


Fig. 8 Safe Operating Area



Outline Dimension(mm)



SYMBOL	MILLMETERS(mm)			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	3.70	3.90	4.10	
A1	1.25	1.45	1.65	
b	0.40	0.50	0.60	
b1	–	–	0.70	
b2	–	–	1.00	
c	0.35	0.45	0.55	
D	4.70	4.90	5.10	
D1	3.70	3.90	4.10	
E	7.80	8.00	8.20	
e	1.27 TYP			
L	13.10	13.50	13.90	
L1	0.90	1.00	1.10	
L2	1.50	1.70	1.90	

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