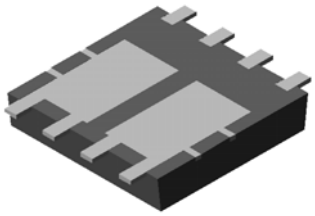
KODENSHI AUK

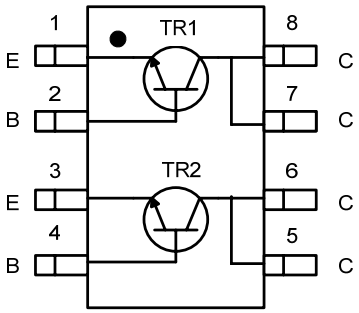
SUT041G

Dual NPN Bipolar transistor

Descriptions

- General purpose amplifier
- Recommended for LED Drive Application





TESOP-8

Features

- Thermally Enhanced Power PKG
- Low saturation: V_{CE}(sat)= 0.5V Max
- 2 NPN chips in TESOP-8 Package

Ordering Information

Type NO.	Marking	Package Code
SUT041G	SUT041□	TESOP-8

□ : Year & Week Code

Absolute maximum ratings(TR1, TR2)

(Ta=25°C)

Characteristic	Symbol	Ratings	Unit
Collector-Base voltage	V_{CBO}	45	V
Collector-Emitter voltage	V_{CEO}	40	V
Emitter-Base voltage	V_{EBO}	5	V
Collector current	I_C	1	A(DC)
	I_{CP}*	2	A(Pulse)
Collector power dissipation	P_C(Ta=25°C) **	0.75	W/TOTAL
		0.55	W/ELEMENT
	P_C(Tc=25°C)	5	W/TOTAL
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-55~150	°C

* : Single pulse, tp= 300 μs

** : Each terminal mounted on a recommended solder land

Electrical Characteristics(TR1, TR2)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-Base breakdown voltage	BV_{CBO}	I_C=100μA, I_E=0	45	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	I_C=1mA, I_B=0	40	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	I_E=10μA, I_C=0	5	-	-	V
Collector cut-off current	I_{CBO}	V_{CB}=45V, 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} [1)]	V_{CE}=1V, I_C=100mA	160	-	320	-
Collector-Emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA	-	-	0.5	V
Transition frequency	f_T	V_{CE}=5V, I_C=10mA	-	150	-	MHz
Collector output capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	8	-	pF

Note 1) hFE Rank : 160~320 only

Electrical Characteristic Curves(TR1, TR2)

Fig. 1 P_C - T_a

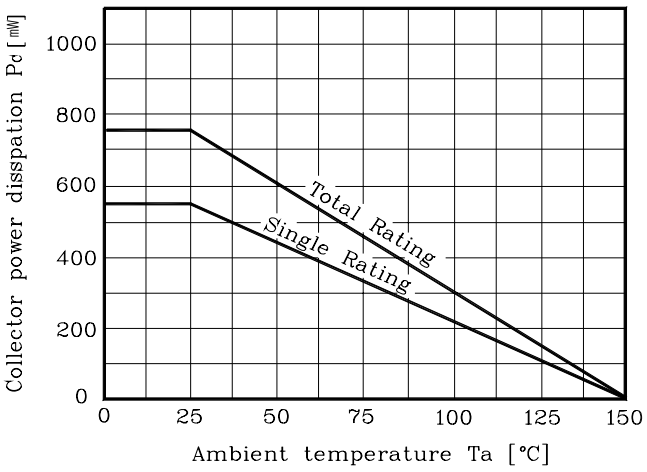


Fig. 2 I_C - V_{BE}

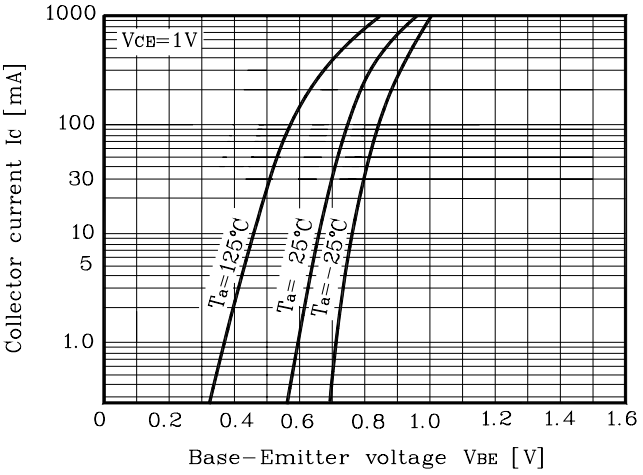


Fig. 3 $V_{CE(sat)}$ - I_C

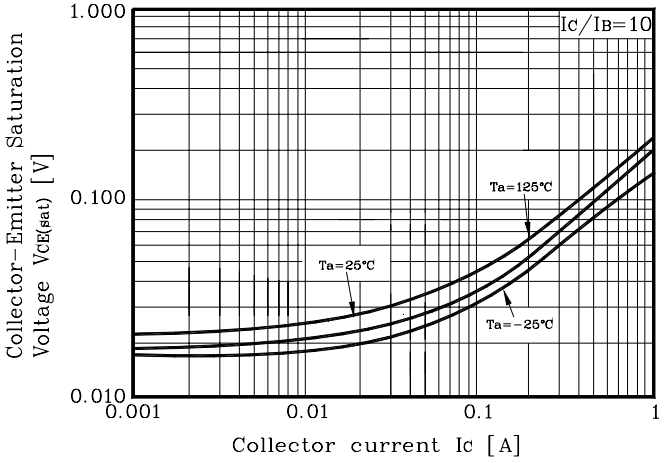


Fig. 4 I_C - V_{CE}

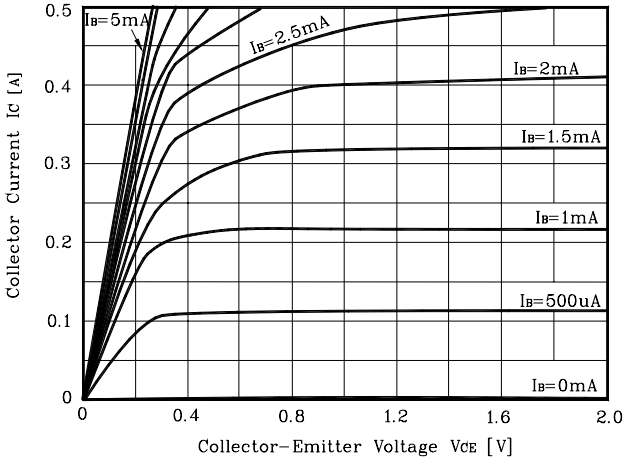


Fig. 5 I_C - V_{CE}

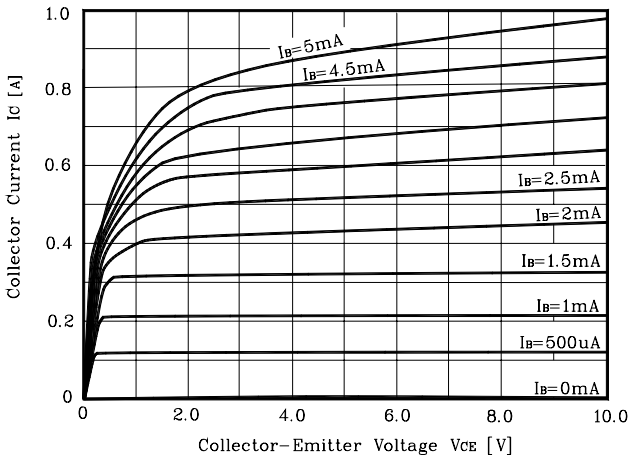


Fig. 6 h_{FE} - I_C

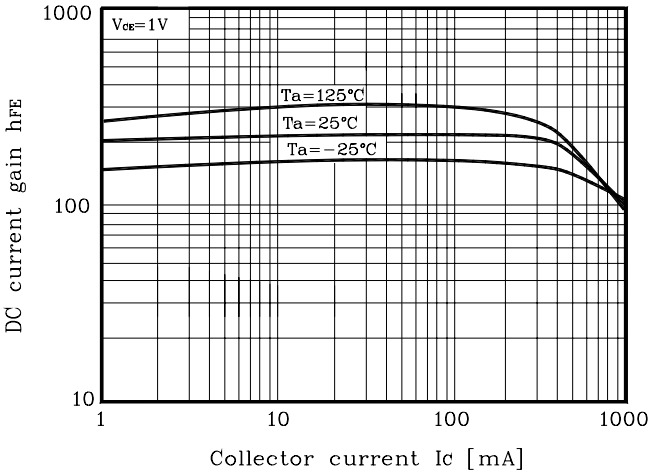


Fig. 7 h_{FE} - I_C

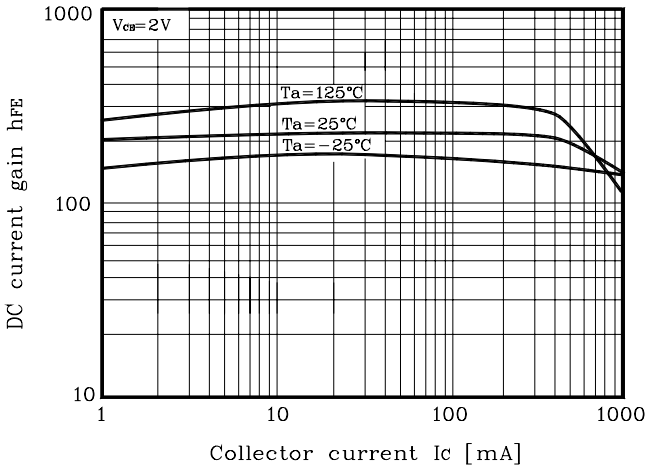


Fig. 8 h_{FE} - I_C

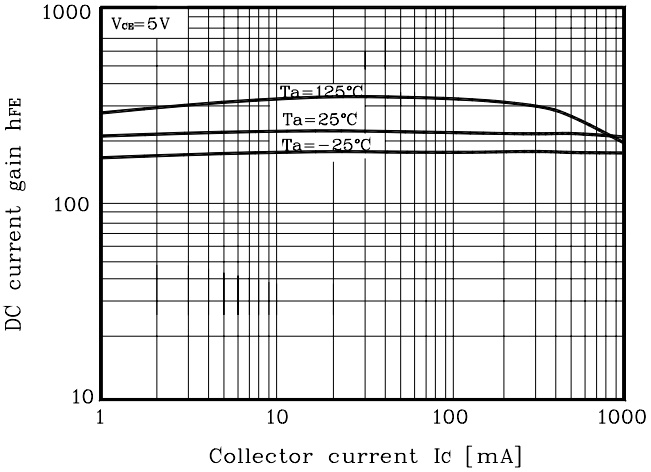


Fig. 9 Cob - V_{CB}

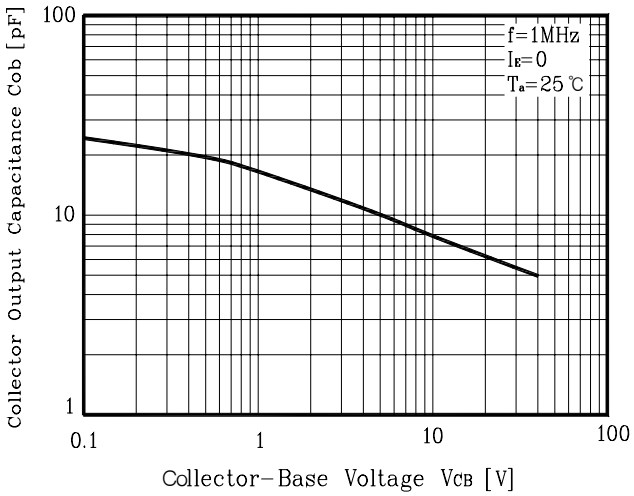


Fig. 10 f_T - I_C

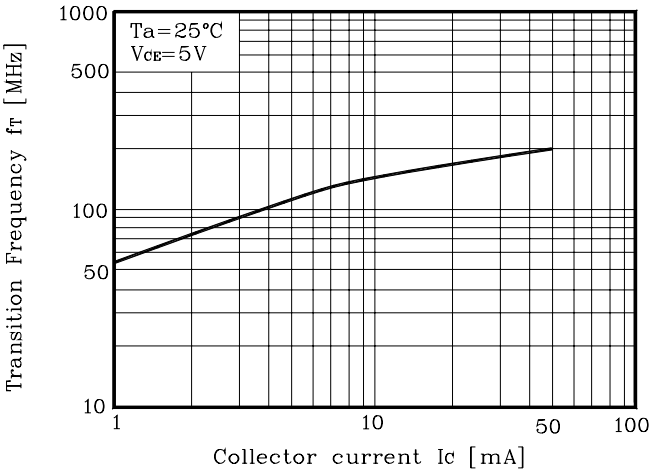
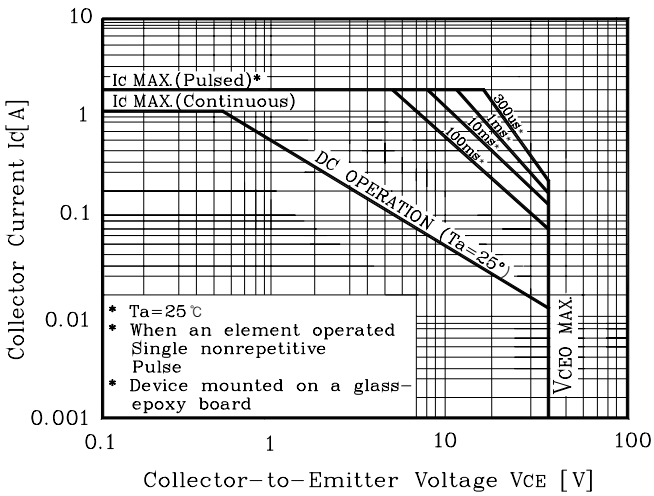
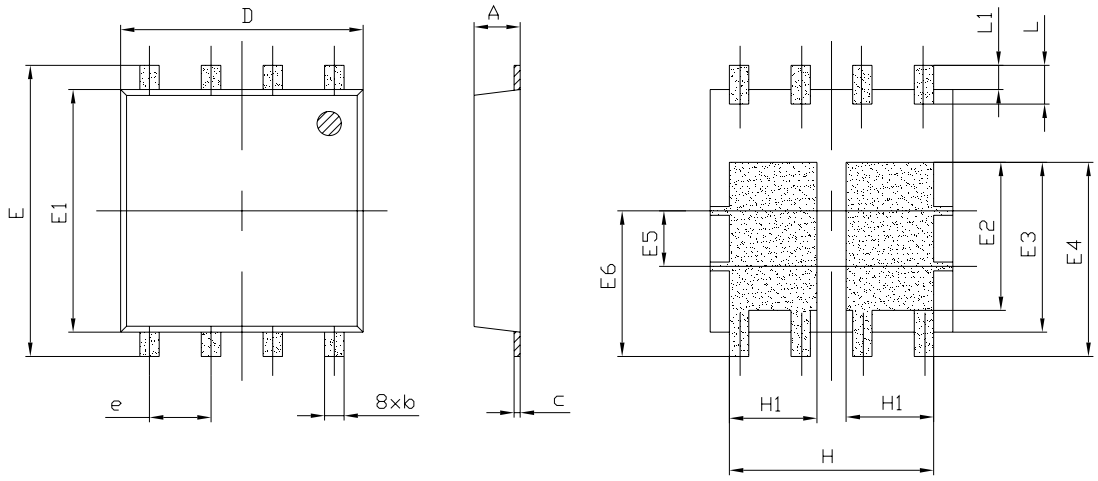


Fig. 11 Safe operating Area

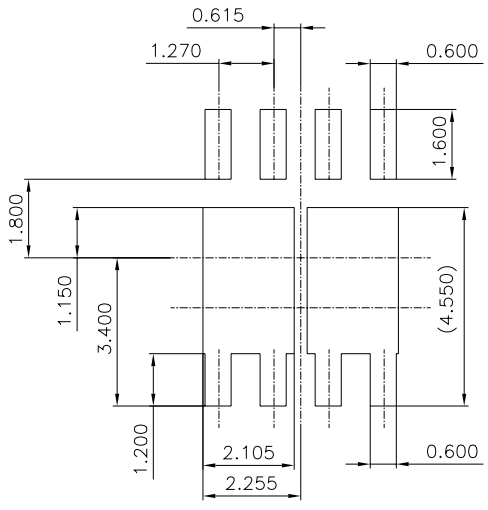


Outline Dimension



SYMBOL	MILLIMETER(mm)			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.900	0.950	1.000	
b	0.350	0.400	0.500	
c	0.077	0.127	0.157	
D	4.900	5.000	5.100	
E	5.850	6.000	6.150	
E1	4.900	5.000	5.100	
E2	2.850	3.050	3.250	
E3	3.300	3.500	3.700	
E4	3.800	4.000	4.200	
E5	1.145 TYP			
E6	3.000 TYP			
e	1.270 TYP			
H	4.210 TYP			
H1	1.805 TYP			
L	0.650	0.800	0.950	
L1	0.350	0.500	0.650	

※Recommend PCB solder land [Unit: mm]



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