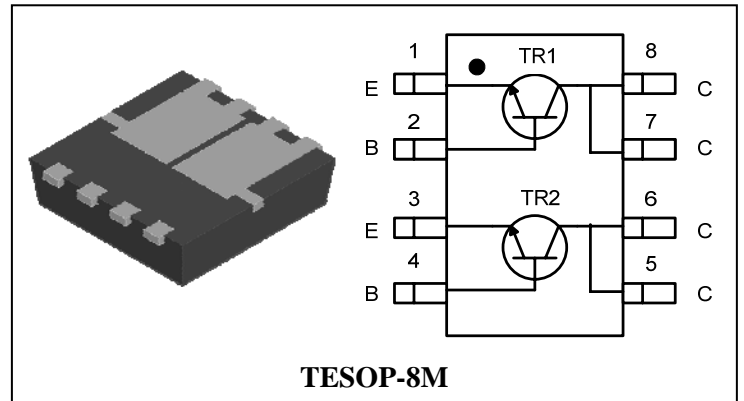


Descriptions

- General purpose amplifier
- Recommended for LED Drive Application

Features

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



Ordering Information

Type NO.	Marking	Package Code
SUT041C	T041□	TESOP-8M

□ : Year & Week Code

Absolute maximum ratings(TR1, TR2)

($T_a = 25^\circ C$)

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	$P_C(T_a = 25^\circ C)^{**}$	0.5	W/TOTAL
		0.4	W/ELEMENT
	$P_C(T_c = 25^\circ C)$	4	W/TOTAL
Junction temperature	T_J	150	$^\circ C$
Storage temperature	T_{stg}	-55~150	$^\circ C$

* : Single pulse, $t_p = 300 \mu s$

** : 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}	$I_C = 100 \mu A, I_E = 0$	45	-	-	V
Collector-Emitter breakdown voltage	BV_{CEO}	$I_C = 1mA, I_B = 0$	40	-	-	V
Emitter-Base breakdown voltage	BV_{EBO}	$I_E = 10 \mu A, I_C = 0$	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 $P_C - T_a$

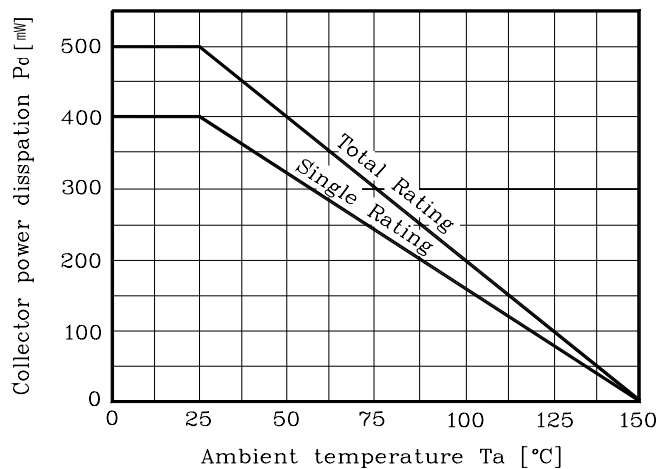


Fig. 2 $I_C - V_{BE}$

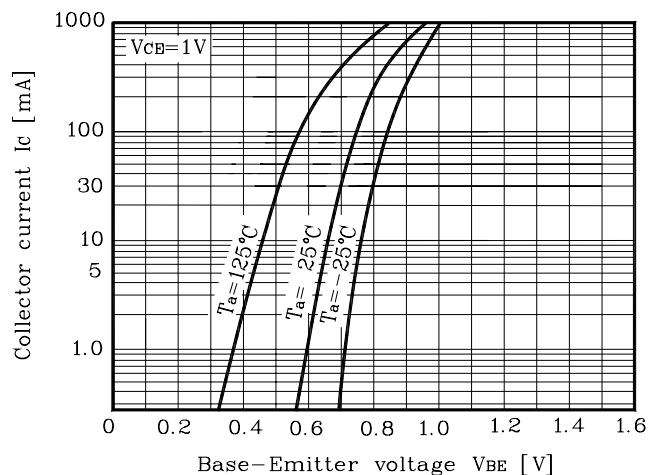


Fig. 3 $V_{CE(sat)} - I_C$

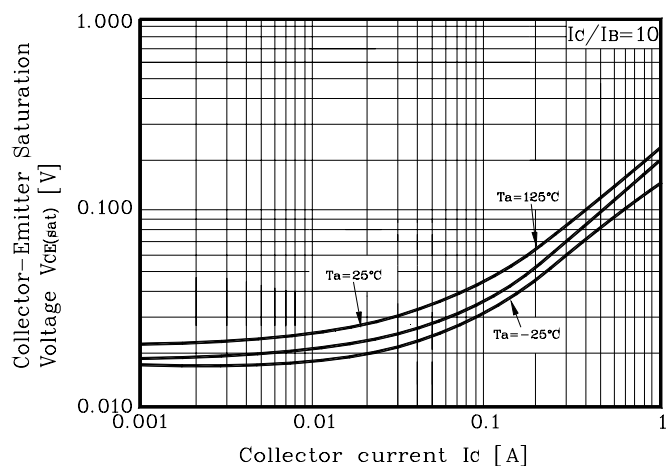


Fig. 4 $I_C - V_{CE}$

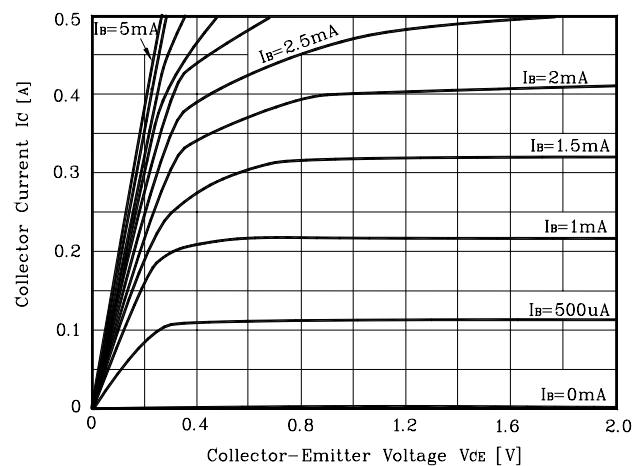


Fig. 5 $I_C - V_{CE}$

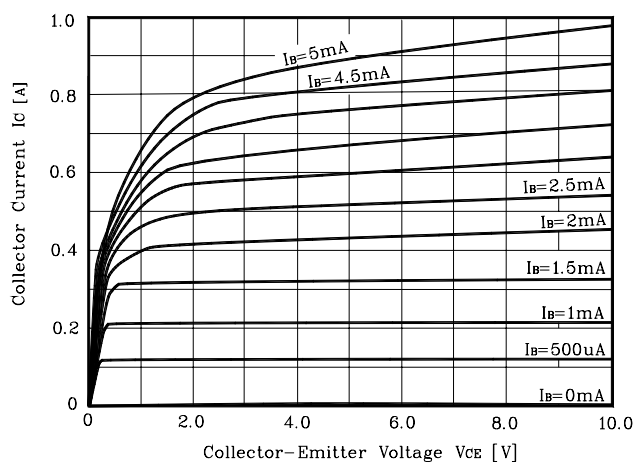


Fig. 6 $h_{FE} - I_C$

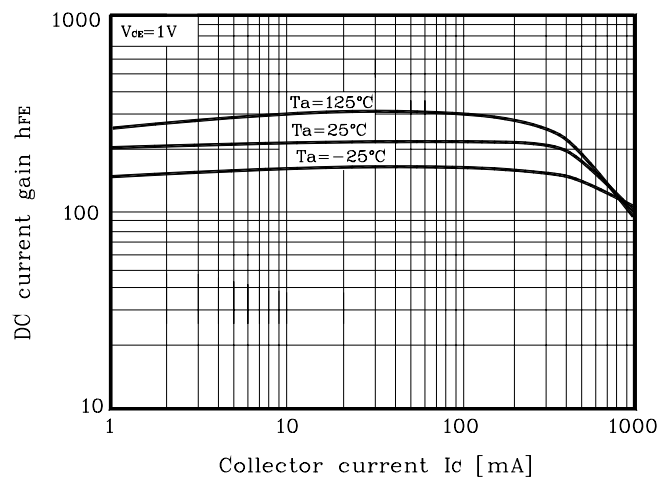


Fig. 7 $h_{FE} - I_C$

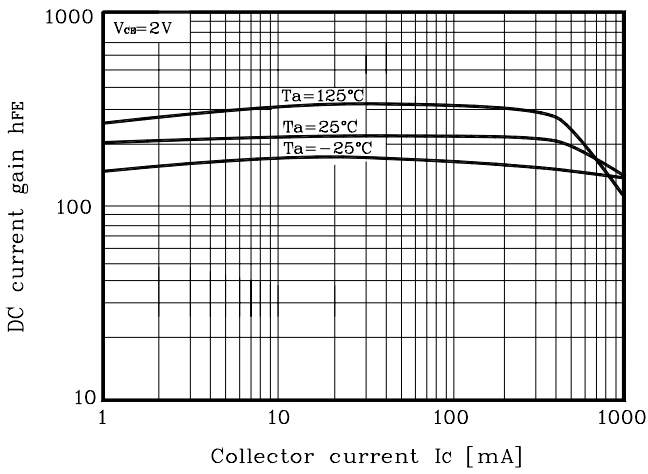


Fig. 8 $h_{FE} - I_C$

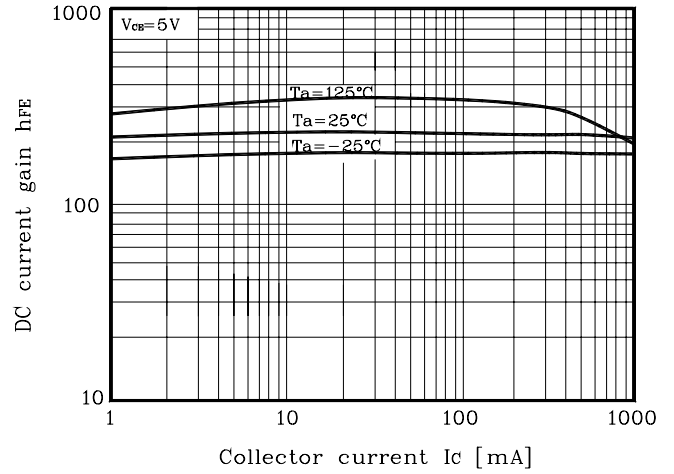


Fig. 9 $C_{ob} - V_{CB}$

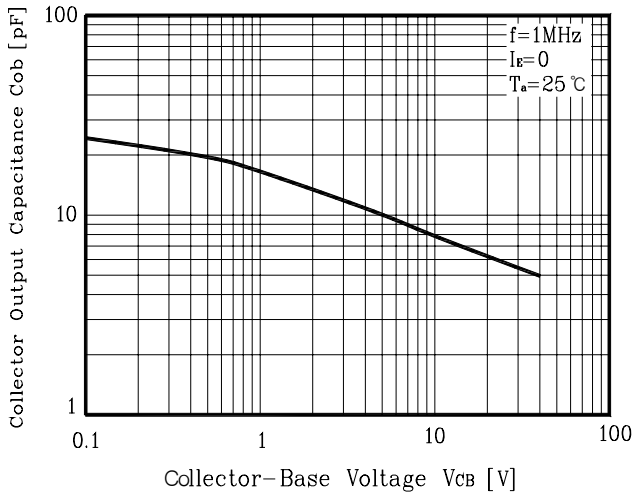


Fig. 10 $f_T - I_C$

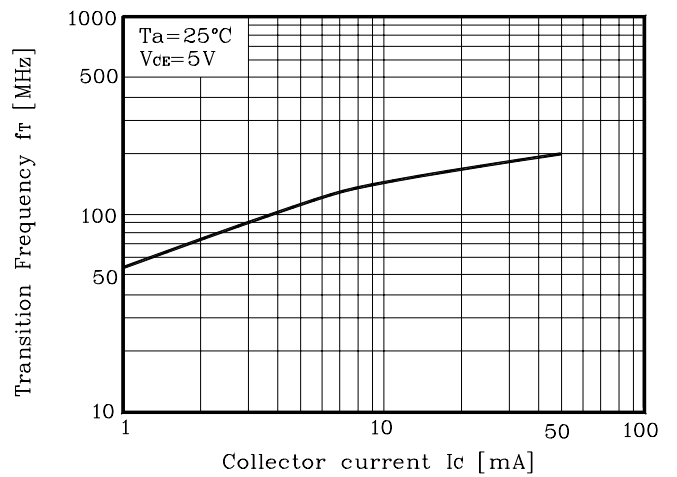
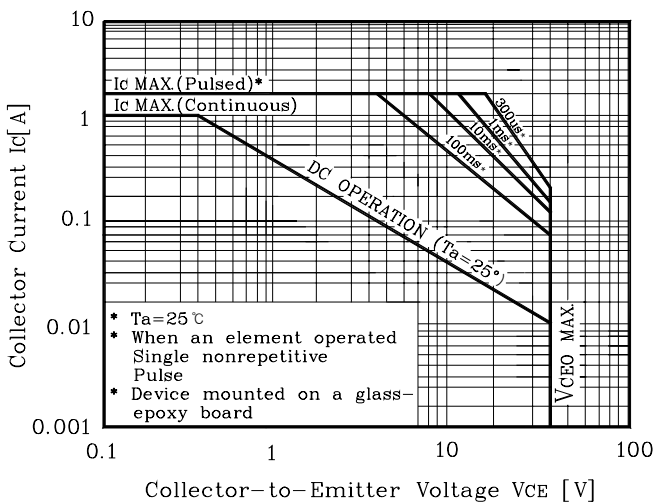
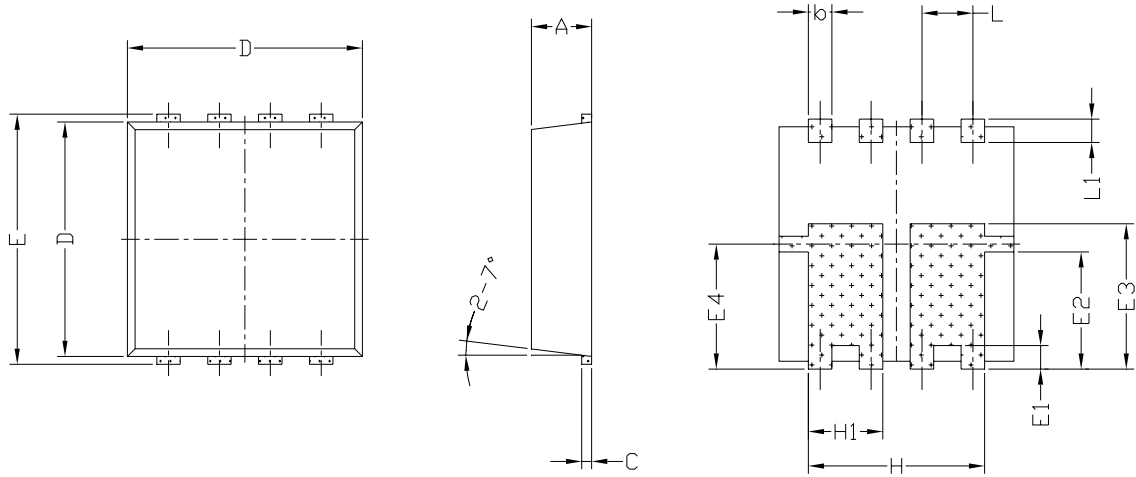


Fig. 11 Safe operating Area

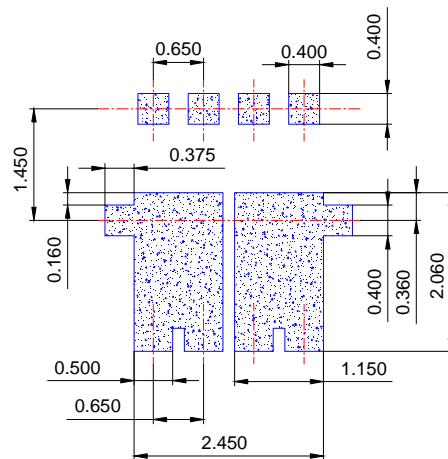


Outline Dimension



SYMBOL	SYMBOL			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.740	0.770	0.800	
b	0.250	0.300	0.400	
C	0.077	0.127	0.177	
D	2.900	3.000	3.100	
E	3.050	3.200	3.350	
E1	0.100	0.300	0.500	
E2	1.300	1.500	1.700	
E3	1.660	1.860	2.060	
E4	1.600 TYP			
H	2.050	2.250	2.450	
H1	0.750	0.950	1.150	
L	0.650			
L1	0.200	0.300	0.400	

※Recommend PCB solder land [Unit: mm]



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