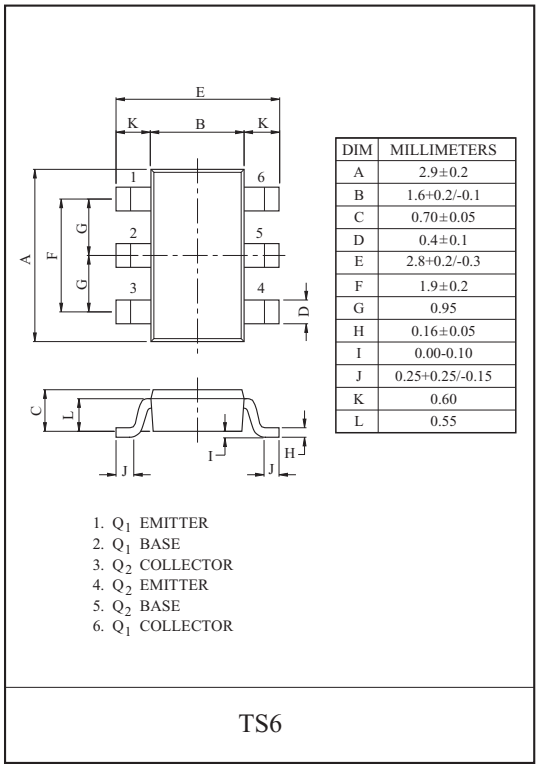
GENERAL PURPOSE APPLICATION.

FEATURES

- Including two devices in TS6.
  (Thin Super Mini type with 6 pin)
- Simplify circuit design.
- Reduce a quantity of parts and manufacturing process.

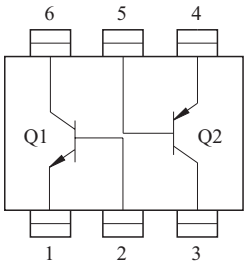


DIM	MILLIMETERS
A	2.9±0.2
B	1.6+0.2/-0.1
C	0.70±0.05
D	0.4±0.1
E	2.8+0.2/-0.3
F	1.9±0.2
G	0.95
H	0.16±0.05
I	0.00-0.10
J	0.25+0.25/-0.15
K	0.60
L	0.55

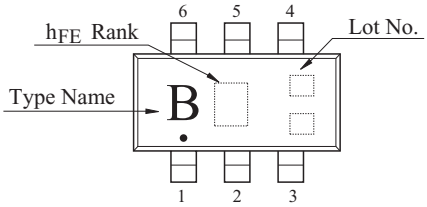
1. Q_1 EMITTER
2. Q_1 BASE
3. Q_2 COLLECTOR
4. Q_2 EMITTER
5. Q_2 BASE
6. Q_1 COLLECTOR

TS6

EQUIVALENT CIRCUIT (TOP VIEW)



Marking



Q1 MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	35	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Emitter Current	I_E	-500	mA

Q2 MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-35	V
Collector-Emitter Voltage	V_{CEO}	-30	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-500	mA
Emitter Current	I_E	500	mA

Q1, Q2 MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector Power Dissipation	P_C *	0.9	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

* Package mounted on a ceramic board (600㎟×0.8㎜)

Q_1 ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Collector Cut-off Current	I_{CBO}	V_{CB}=35V, 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) (Note)	V_{CE}=1V, I_C=100mA	70	-	240	
	h_{FE}(2) (Note)	V_{CE}=6V, I_C=400mA	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=100mA, I_B=10mA	-	0.1	0.25	V
Base-Emitter Voltage	V_{BE}	V_{CE}=1V, I_C=100mA	-	0.8	1.0	V
Transition Frequency	f_T	V_{CE}=6V, I_C=20mA	-	300	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=6V, I_E=0, f=1MHz	-	7.0	-	pF

Note) h_{FE}(1) Classification O:70~140, Y:120~240.
h_{FE}(2) Classification O:25(Min), Y:40(Min).

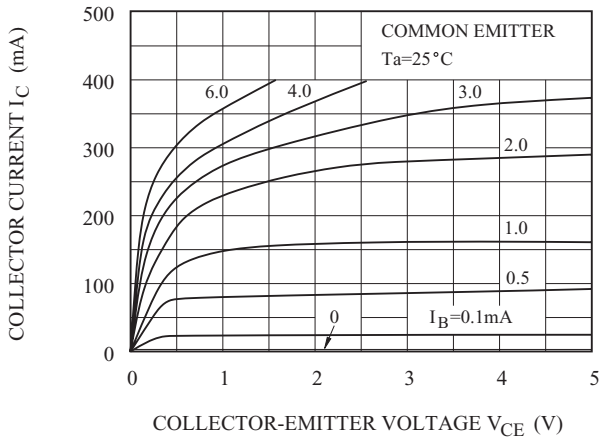
Q_2 ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Collector Cut-off Current	I_{CBO}	V_{CB}=-35V, 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) (Note)	V_{CE}=-1V, I_C=-100mA	70	-	240	
	h_{FE}(2) (Note)	V_{CE}=-6V, I_C=-400mA	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=-100mA, I_B=-10mA	-	-0.1	-0.25	V
Base-Emitter Voltage	V_{BE}	V_{CE}=-1V, I_C=-100mA	-	-0.8	-1.0	V
Transition Frequency	f_T	V_{CE}=-6V, I_C=-20mA	-	200	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-6V, I_E=0, f=1MHz	-	13	-	pF

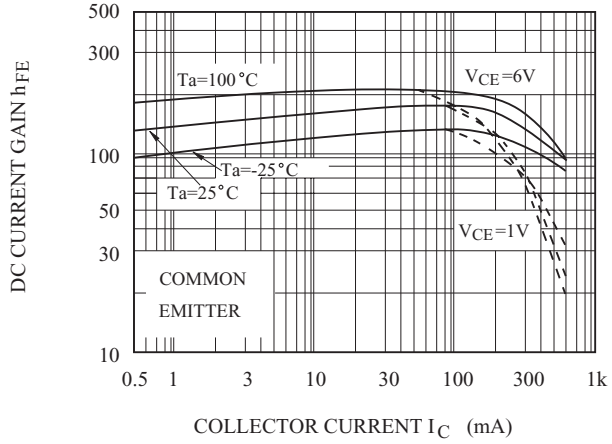
Note) h_{FE}(1) Classification O:70~140, Y:120~240.
h_{FE}(2) Classification O:25(Min), Y:40(Min).

Q_1 (NPN TRANSISOR)

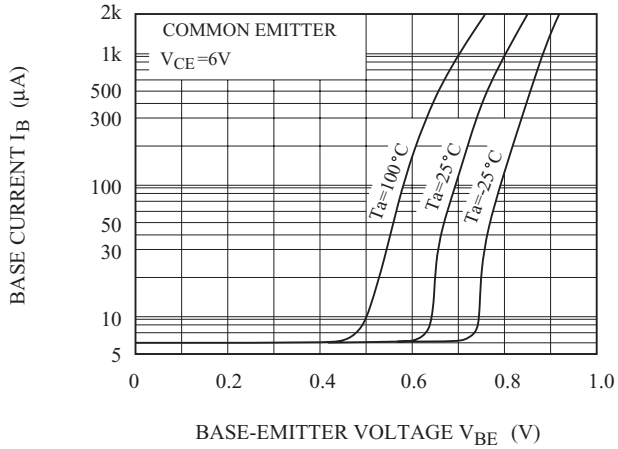
I_C - V_{CE}



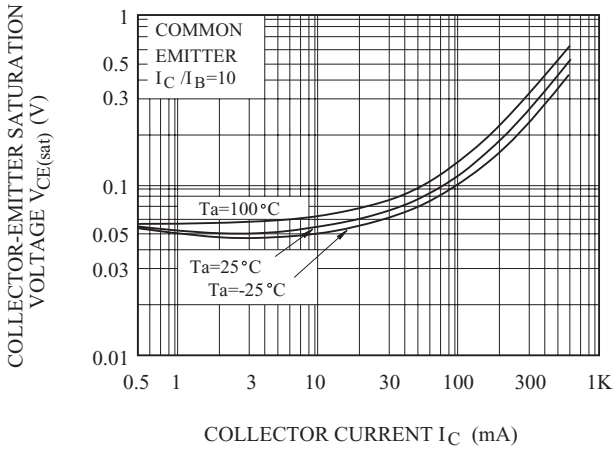
h_{FE} - I_C



I_B - V_{BE}

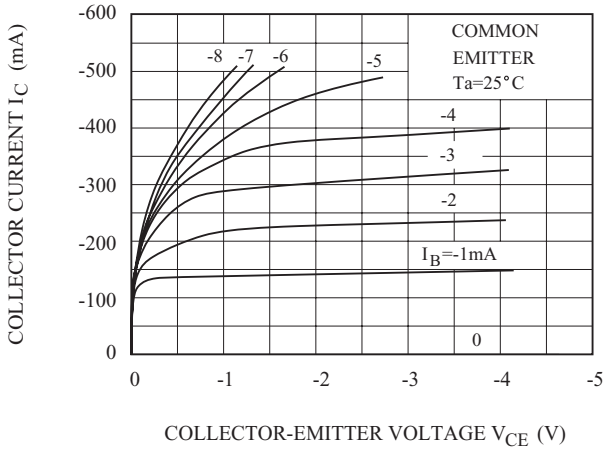


$V_{CE(sat)}$ - I_C

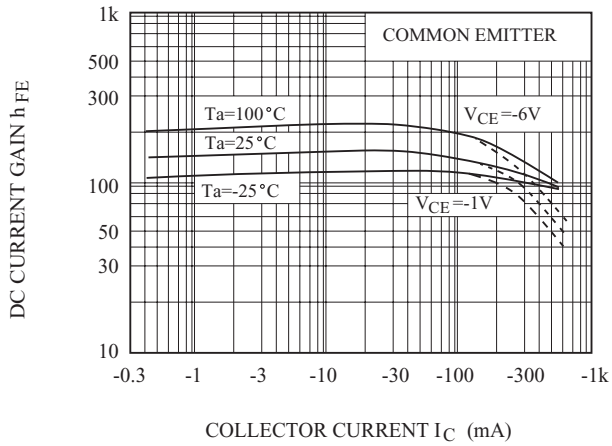


Q_2 (PNP TRANSISOR)

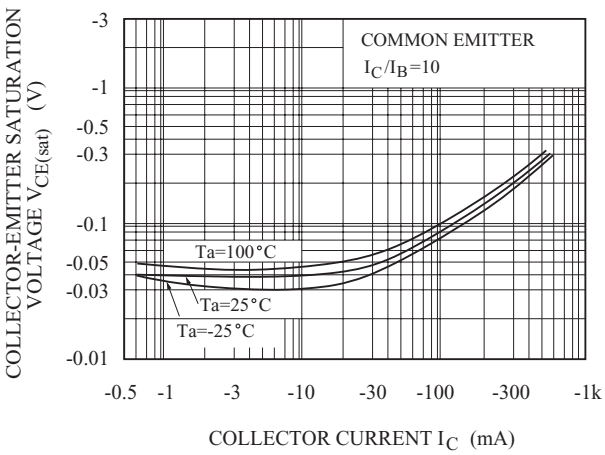
I_C - V_{CE}



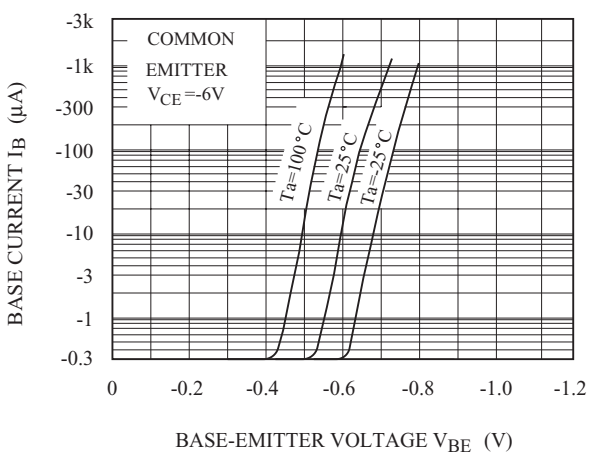
h_{FE} - I_C



$V_{CE(sat)}$ - I_C



I_B - V_{BE}



Pc - Ta