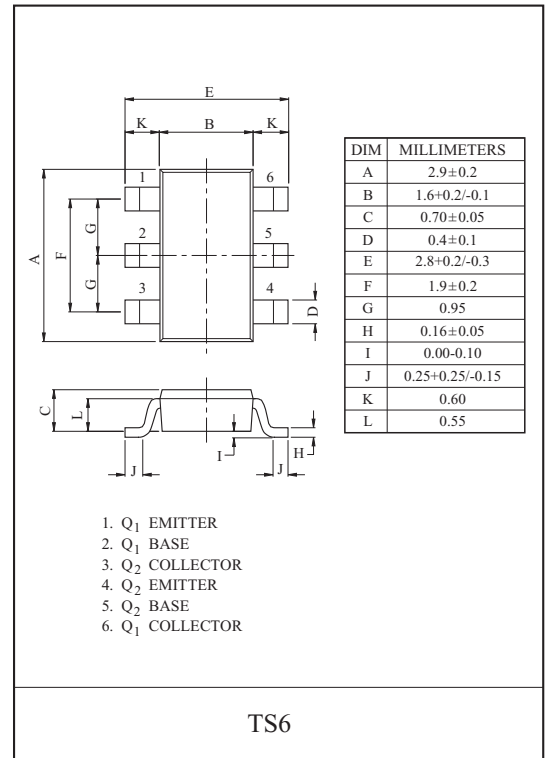
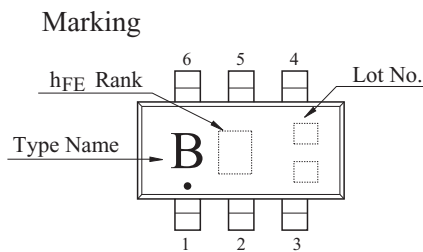
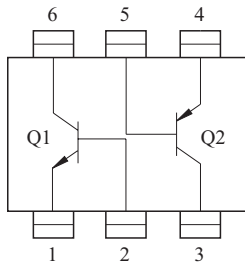


### GENERAL PURPOSE APPLICATION.

### FEATURES

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

### EQUIVALENT CIRCUIT (TOP VIEW)



### Q1 MAXIMUM RATINGS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	35	V
Collector-Emitter Voltage	V <sub>CEO</sub>	30	V
Emitter-Base Voltage	V <sub>EBO</sub>	5	V
Collector Current	I <sub>C</sub>	500	mA
Emitter Current	I <sub>E</sub>	-500	mA

### Q2 MAXIMUM RATINGS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	-35	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-30	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>C</sub>	-500	mA
Emitter Current	I <sub>E</sub>	500	mA

### Q1, Q2 MAXIMUM RATINGS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector Power Dissipation	P <sub>C</sub> *	0.9	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ 150	°C

\* Package mounted on a ceramic board (600mm<sup>2</sup> × 0.8mm)

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## Q<sub>1</sub> ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> =35V, I <sub>E</sub> =0	-	-	0.1	μA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0	-	-	0.1	μA
DC Current Gain	h <sub>FE</sub> (1) (Note)	V <sub>CE</sub> =1V, I <sub>C</sub> =100mA	70	-	240	
	h <sub>FE</sub> (2) (Note)	V <sub>CE</sub> =6V, I <sub>C</sub> =400mA	25	-	-	
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> =100mA, I <sub>B</sub> =10mA	-	0.1	0.25	V
Base-Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =100mA	-	0.8	1.0	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =20mA	-	300	-	MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =6V, I <sub>E</sub> =0, f=1MHz	-	7.0	-	pF

Note) h<sub>FE</sub>(1) Classification O:70~140, Y:120~240.

h<sub>FE</sub>(2) Classification O:25(Min), Y:40(Min).

## Q<sub>2</sub> ELECTRICAL CHARACTERISTICS (Ta=25 °C)

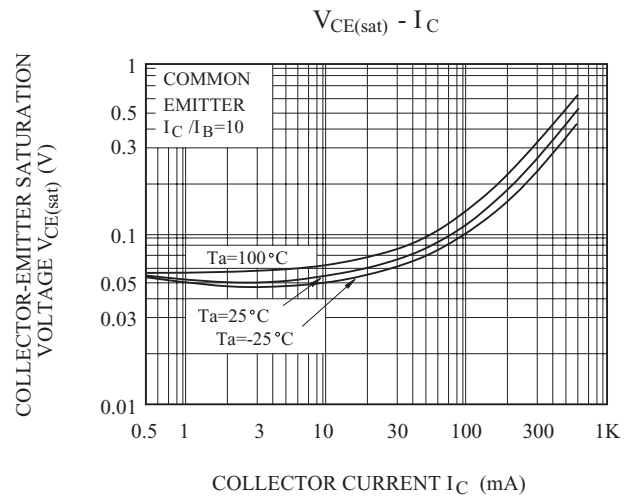
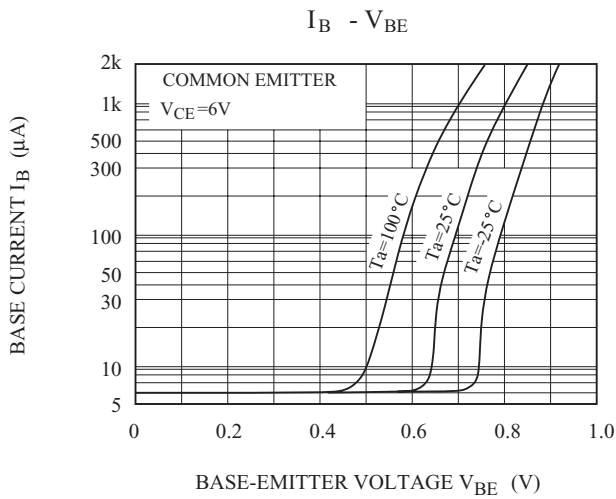
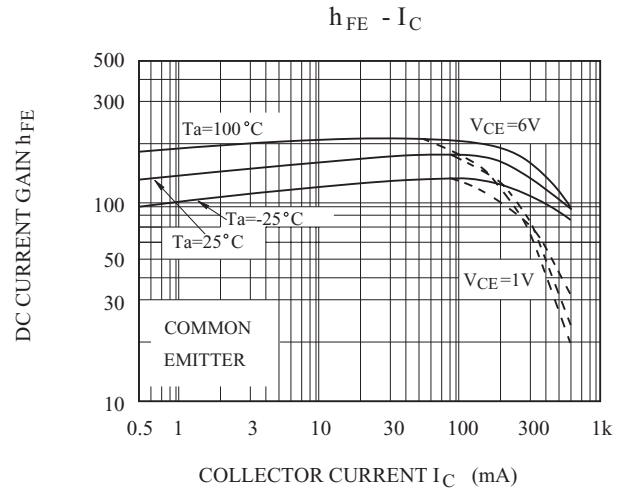
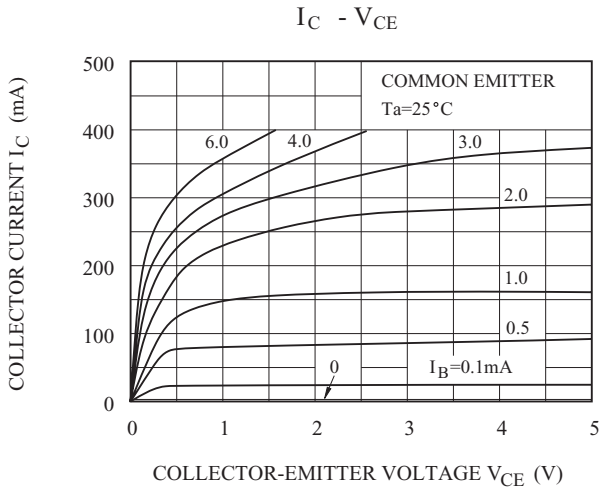
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT.
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> =-35V, I <sub>E</sub> =0	-	-	-0.1	μA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-5V, I <sub>C</sub> =0	-	-	-0.1	μA
DC Current Gain	h <sub>FE</sub> (1) (Note)	V <sub>CE</sub> =-1V, I <sub>C</sub> =-100mA	70	-	240	
	h <sub>FE</sub> (2) (Note)	V <sub>CE</sub> =-6V, I <sub>C</sub> =-400mA	25	-	-	
Collector-Emitter Saturation Voltage	V <sub>CE(SAT)</sub>	I <sub>C</sub> =-100mA, I <sub>B</sub> =-10mA	-	-0.1	-0.25	V
Base-Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> =-1V, I <sub>C</sub> =-100mA	-	-0.8	-1.0	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =-6V, I <sub>C</sub> =-20mA	-	200	-	MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-6V, I <sub>E</sub> =0, f=1MHz	-	13	-	pF

Note) h<sub>FE</sub>(1) Classification O:70~140, Y:120~240.

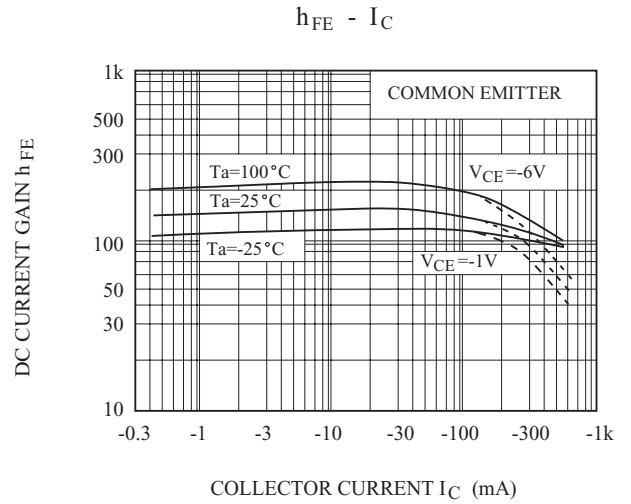
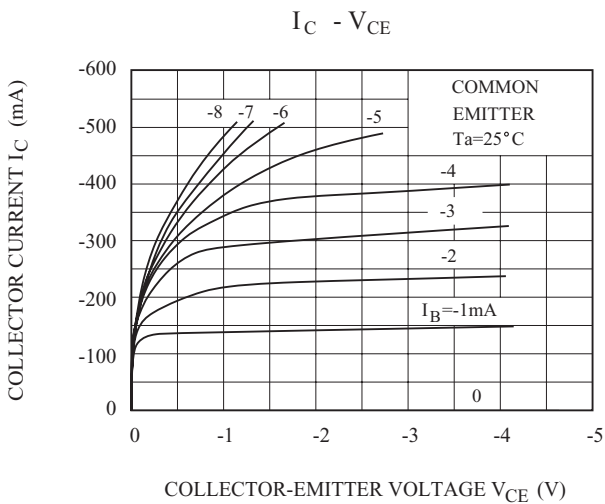
h<sub>FE</sub>(2) Classification O:25(Min), Y:40(Min).

# KTX111T

Q<sub>1</sub> (NPN TRANSISOR)



Q<sub>2</sub> (PNP TRANSISOR)



# KTX111T

