

KEC**SEMICONDUCTOR
TECHNICAL DATA****KTC812T****EPITAXIAL PLANAR NPN TRANSISTOR**

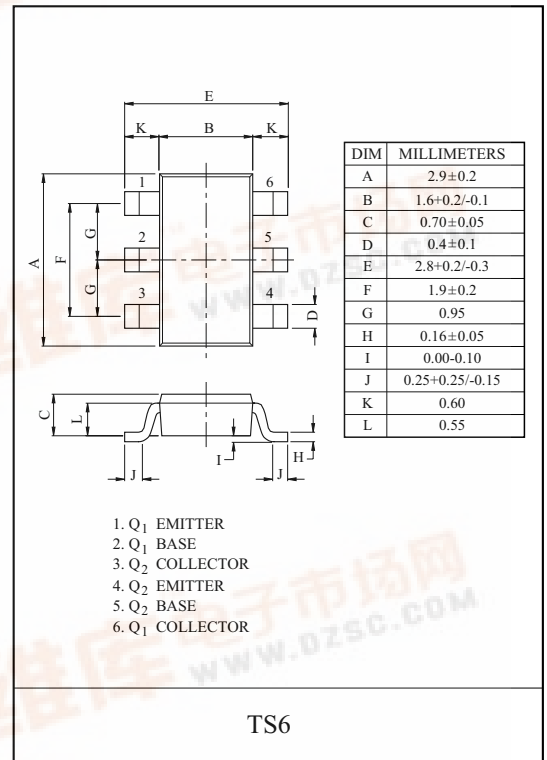
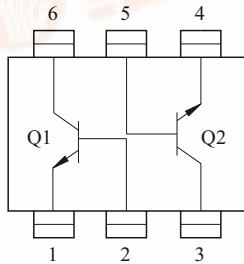
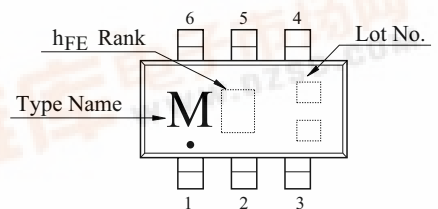
FOR MUTING AND SWITCHING APPLICATION.

FEATURES

- High Emitter-Base Voltage : $V_{EBO}=25V(\text{Min.})$
- High Reverse h_{FE}
: Reverse $h_{FE}=150(\text{Typ.})$ ($V_{CE}=-2V$, $I_C=-4mA$)
- Low on Resistance : $R_{ON}=1\ \Omega(\text{Typ.})$, ($I_B=5mA$)

MAXIMUM RATING ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	25	V
Collector Current	I_C	300	mA
Base Current	I_B	60	mA
Collector Power Dissipation	P_C^*	0.9	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

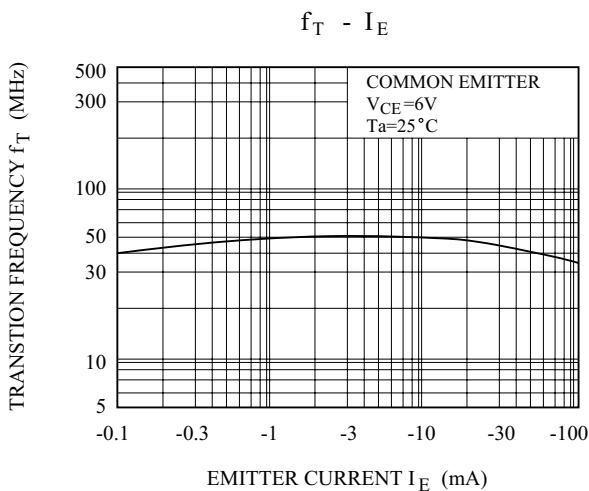
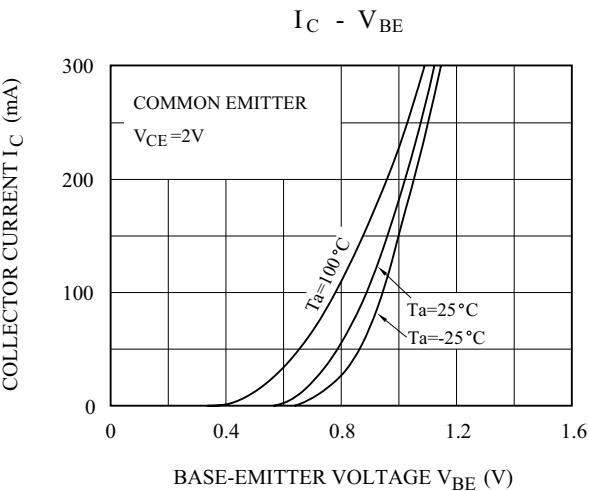
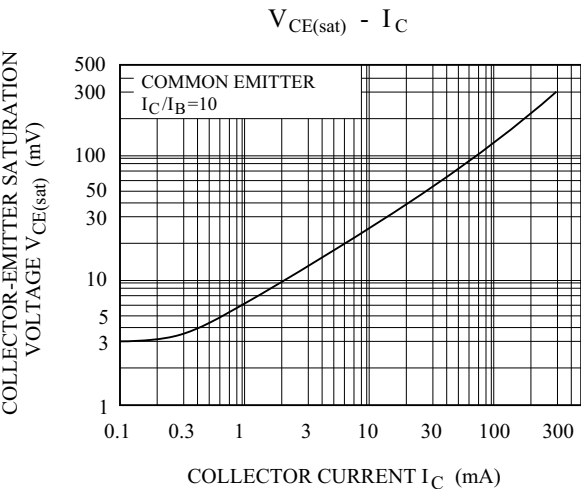
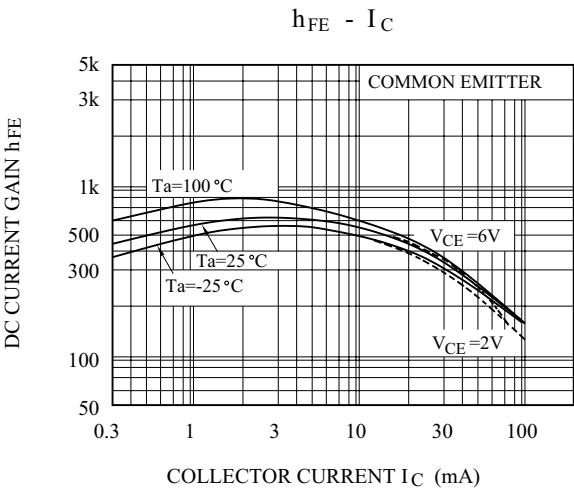
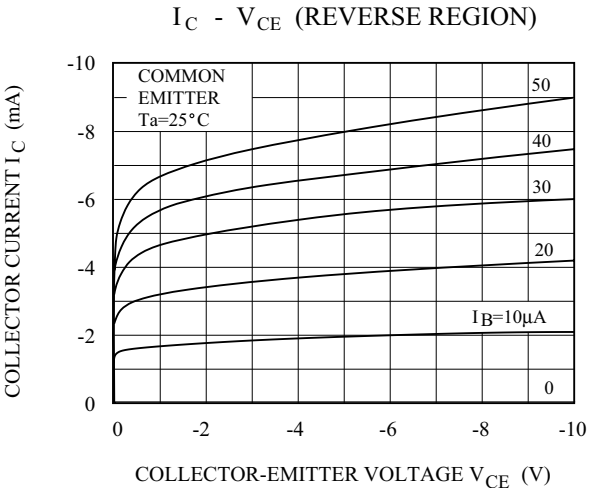
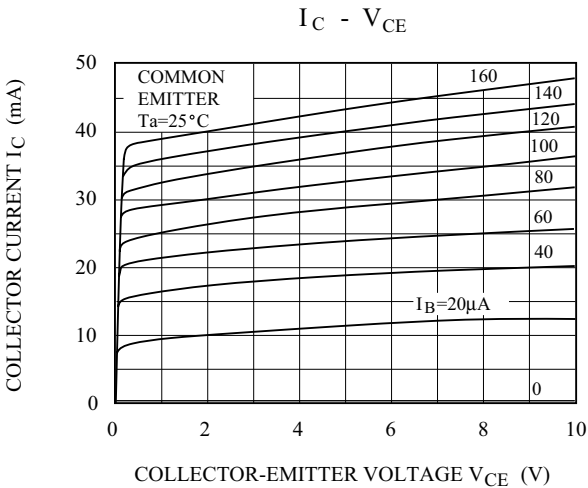
* Package mounted on a ceramic board ($600\text{mm}^2 \times 0.8\text{mm}$)**EQUIVALENT CIRCUIT (TOP VIEW)****Marking****ELECTRICAL CHARACTERISTICS** ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V$, $I_E=0$	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=25V$, $I_C=0$	-	-	0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=2V$, $I_C=4mA$	350	-	1200	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=30mA$, $I_B=3mA$	-	0.042	0.3	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=2V$, $I_C=4mA$	-	0.61	-	V
Transition Frequency	f_T	$V_{CE}=6V$, $I_C=4mA$	-	30	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1\text{MHz}$	-	4.8	7	pF
Switching Time	Turn-on Time		-	160	-	nS
	Storage Time		-	500	-	
	Fall Time		-	130	-	

Note: h_{FE} Classification B: 350 ~ 1200

KTC812T

(Q₁, Q₂ COMMON)



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