

FOR MUTING AND SWITCHING APPLICATION.

### FEATURES

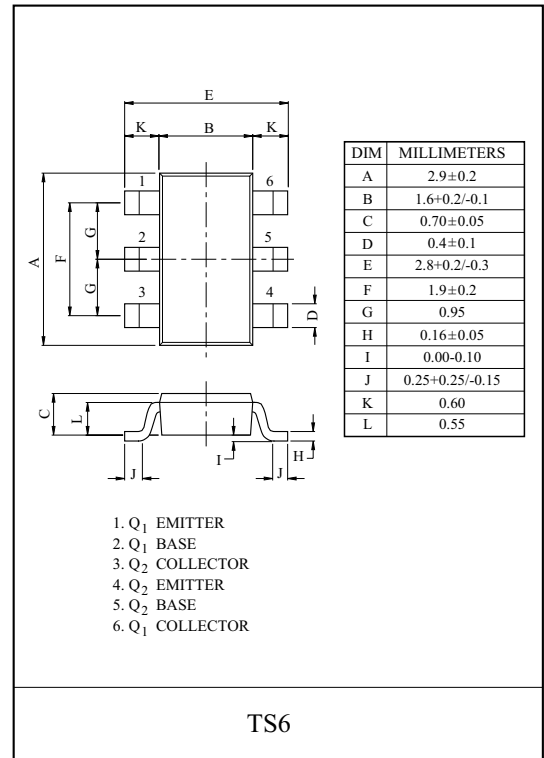
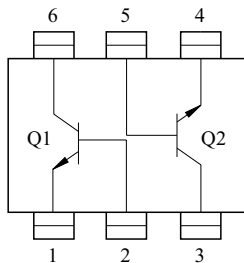
- High Emitter-Base Voltage :  $V_{EBO}=25V(\text{Min.})$
- High Reverse  $h_{FE}$   
: Reverse  $h_{FE}=150(\text{Typ.}) (V_{CE}=-2V, I_C=-4mA)$
- Low on Resistance :  $R_{ON}=1 \Omega (\text{Typ.}), (I_B=5mA)$

### MAXIMUM RATING ( $T_a=25^\circ C$ )

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	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ C$

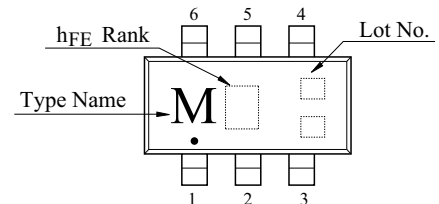
\* Package mounted on a ceramic board ( $600mm^2 \times 0.8mm$ )

### EQUIVALENT CIRCUIT (TOP VIEW)



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### Marking



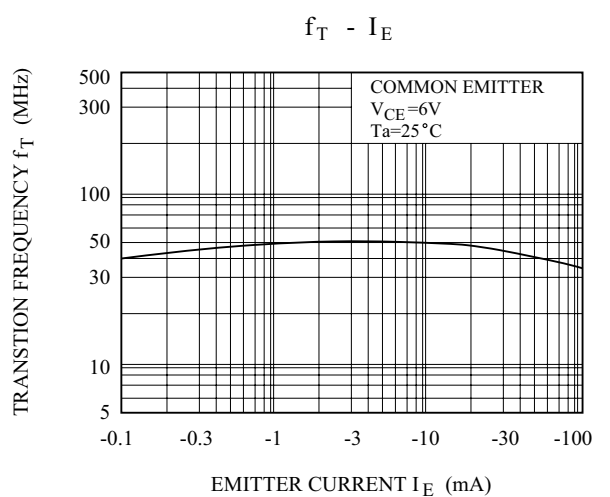
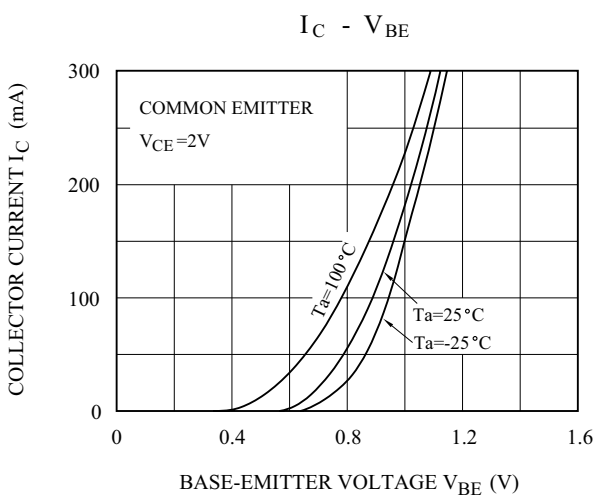
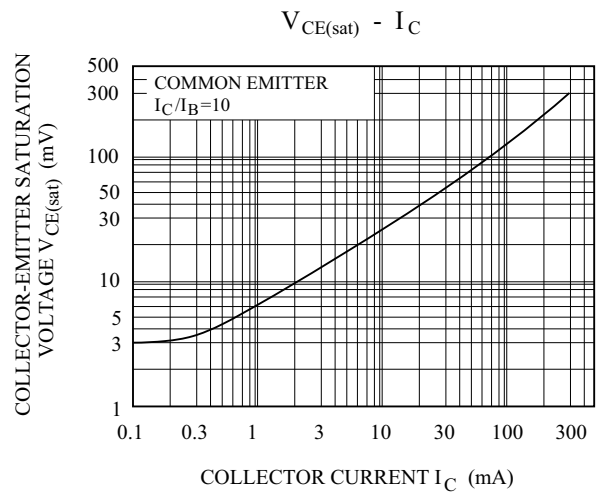
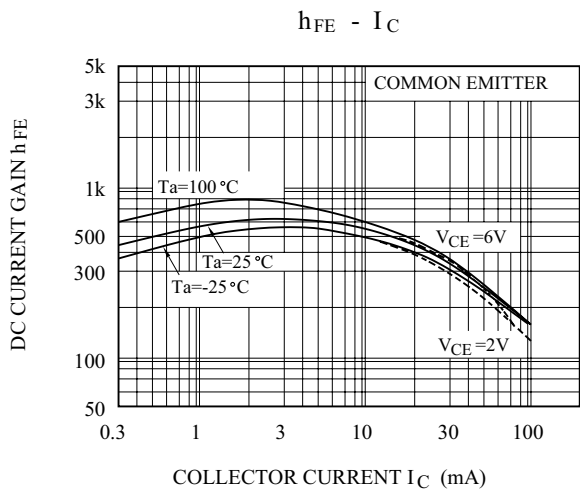
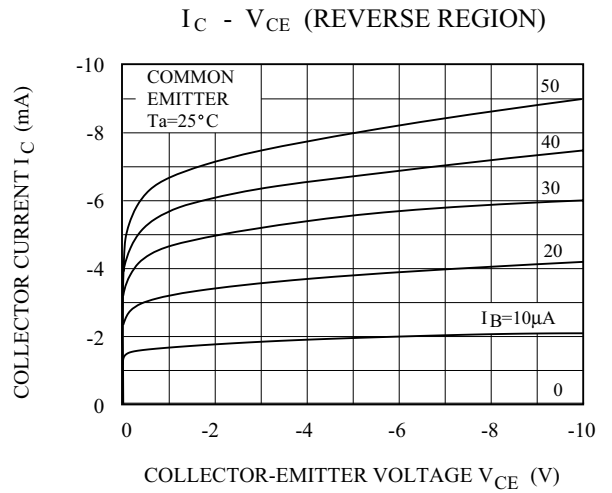
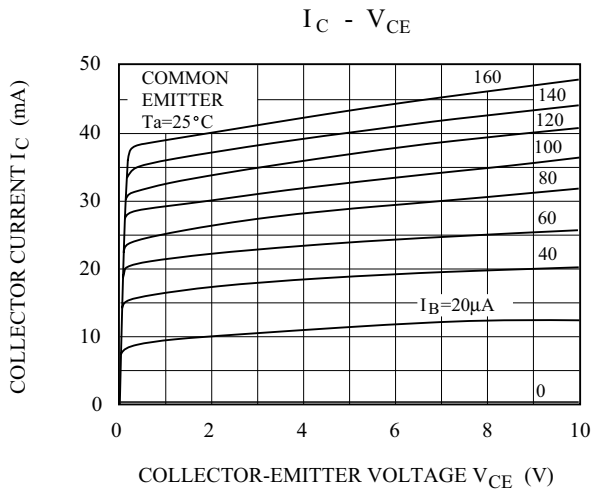
### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT				
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=50V, I_E=0$	-	-	0.1	$\mu A$				
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=25V, I_C=0$	-	-	0.1	$\mu A$				
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	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	4.8	7	pF				
Switching Time	Turn-on Time	$t_{on}$					-	160	-	nS
	Storage Time	$t_{stg}$					-	500	-	
	Fall Time	$t_f$					-	130	-	

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

# KTC812T

(Q<sub>1</sub>, Q<sub>2</sub> COMMON)



# KTC812T

