

KEC**SEMICONDUCTOR
TECHNICAL DATA****KTC3114****EPITAXIAL PLANAR NPN TRANSISTOR**

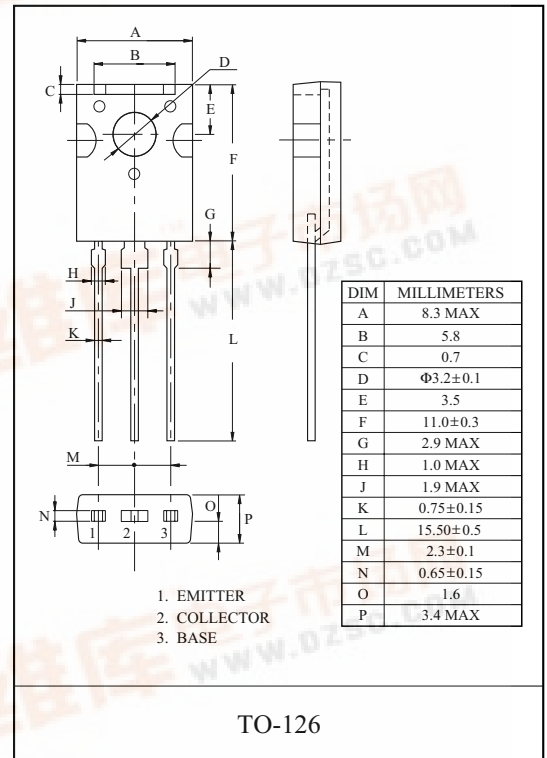
GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURE

- High DC Current Gain : $h_{FE}=600 \sim 3600$.

MAXIMUM RATING (Ta=25℃)

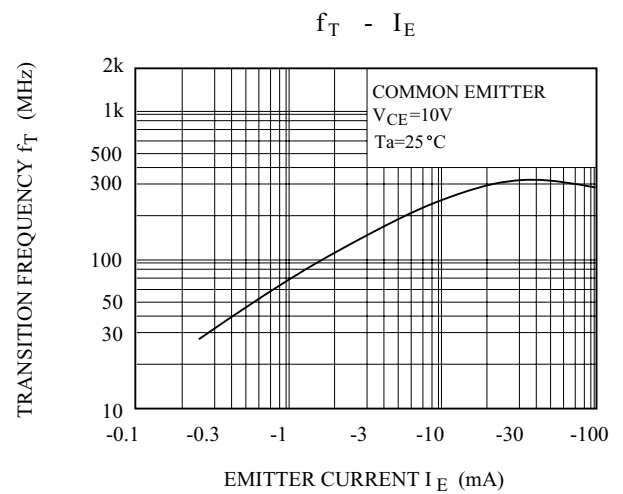
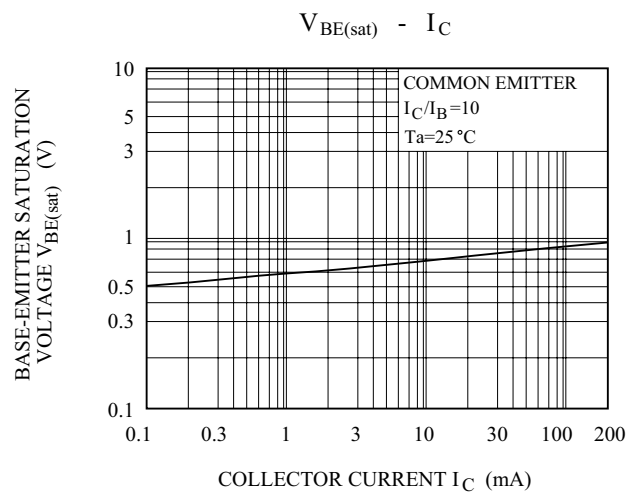
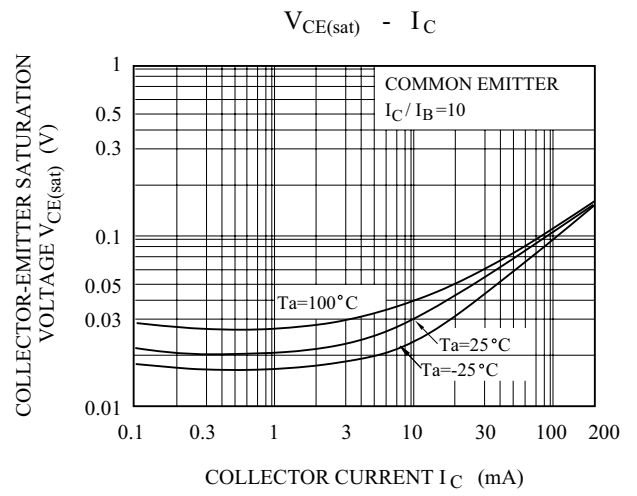
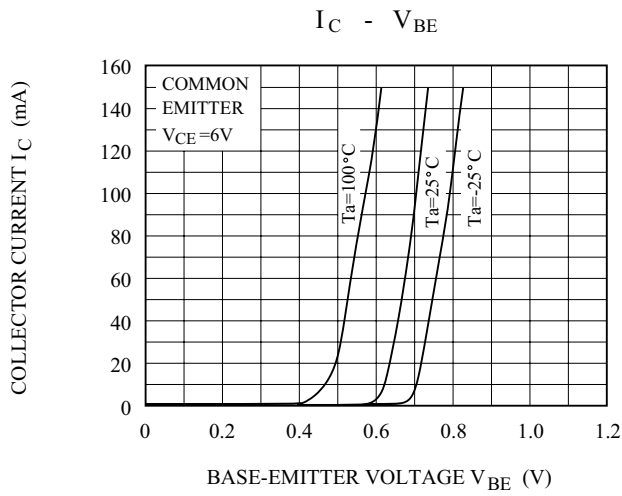
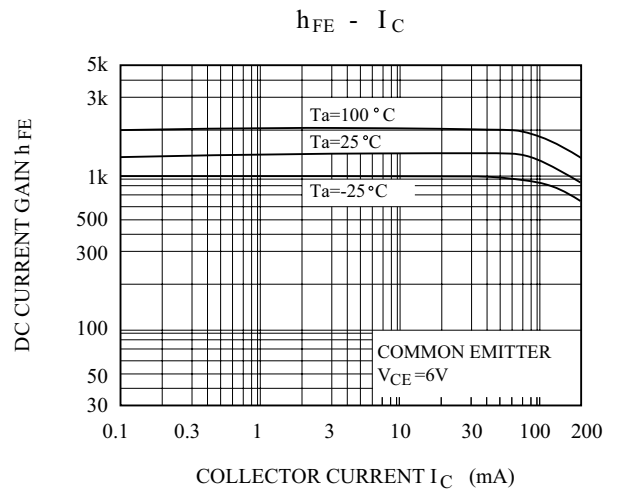
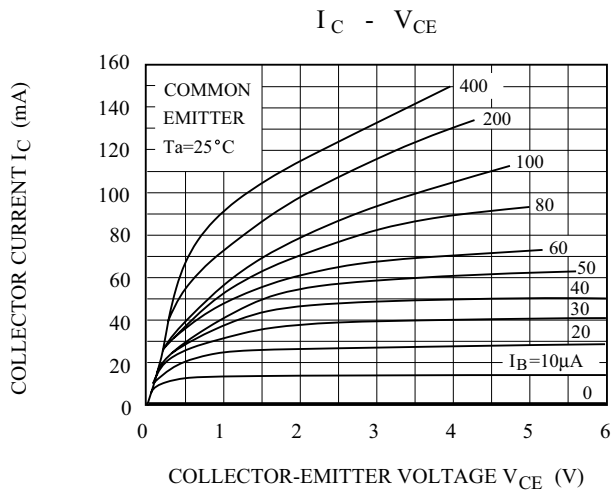
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Base Current	I_B	30	mA
Collector Power Dissipation	P_C	1.5	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃

**ELECTRICAL CHARACTERISTICS (Ta=25℃)**

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}	$V_{EB}=5V, I_C=0$	-	-	0.1	μA
DC Current Gain	$h_{FE}(\text{Note})$	$V_{CE}=6V, I_C=2mA$	600	-	3600	
Collector- Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$	-	0.1	0.25	V
Transition Frequency	f_T	$V_{CE}=10V, I_C=10mA$	100	250	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	3.5	-	pF
Noise Figure	NF(1)	$V_{CE}=6V, I_C=0.1mA$ $f=100Hz, R_g=10k\Omega$	-	0.5	-	dB
	NF(2)	$V_{CE}=6V, I_C=0.1mA$ $f=1kHz, R_g=10k\Omega$	-	0.3	-	dB

Note: h_{FE} Classification A: 600 ~ 1800, B: 1200 ~ 3600

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