

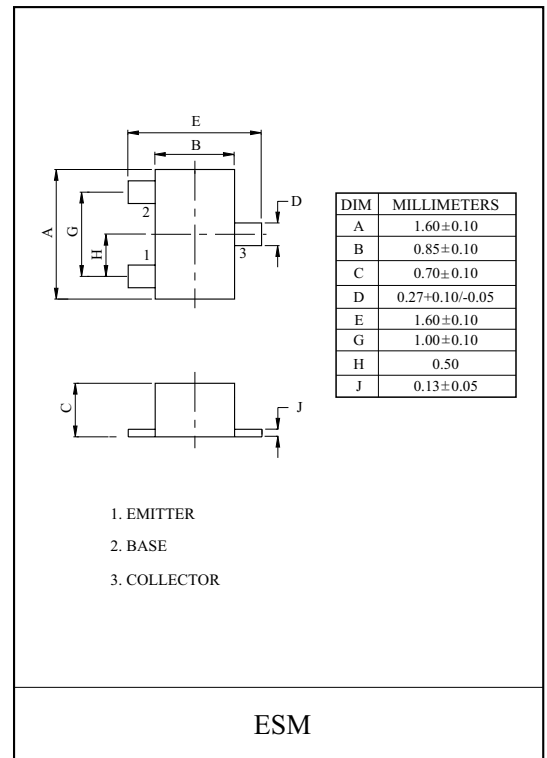
GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

#### FEATURES

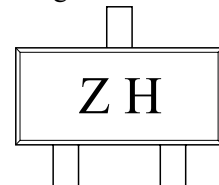
- Low Leakage Current  
:  $I_{CEX} = -50\text{nA}(\text{Max.})$ ;  $V_{CE} = -30\text{V}$ ,  $V_{EB} = -0.5\text{V}$ .
- Low Saturation Voltage  
:  $V_{CE(\text{sat})} = -0.4\text{V}(\text{Max.})$ ;  $I_C = -150\text{mA}$ ,  $I_B = -15\text{mA}$ .
- Complementary to the KTN2222AE.

#### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-60	V
Collector-Emitter Voltage	$V_{CEO}$	-60	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-600	mA
Collector Power Dissipation (Ta=25 °C)	$P_C$	100	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{\text{stg}}$	-55 ~ 150	°C



Marking



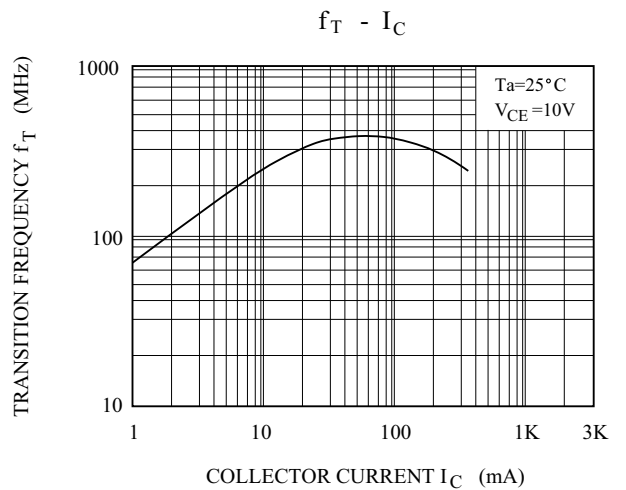
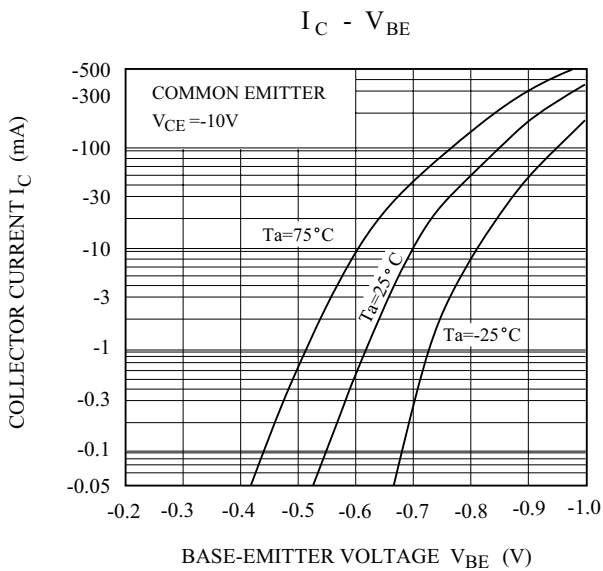
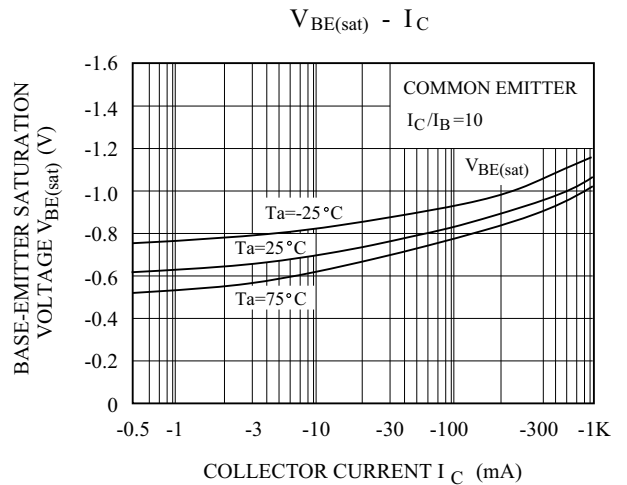
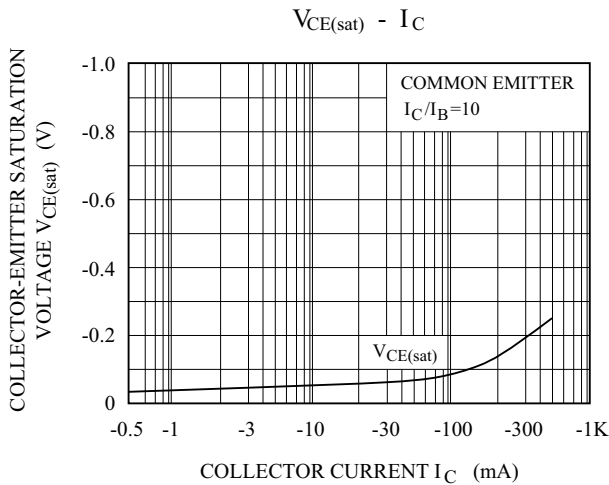
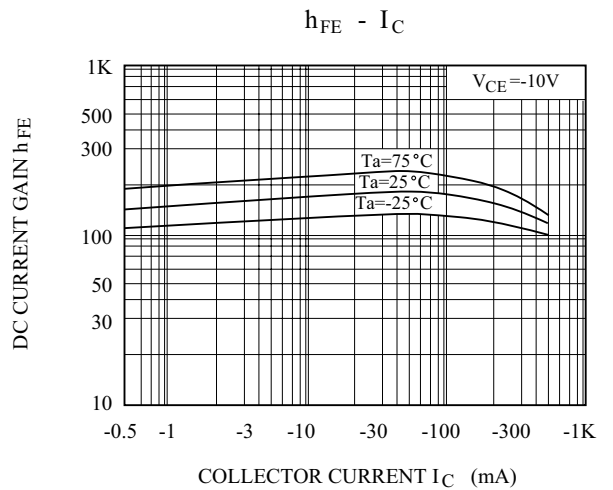
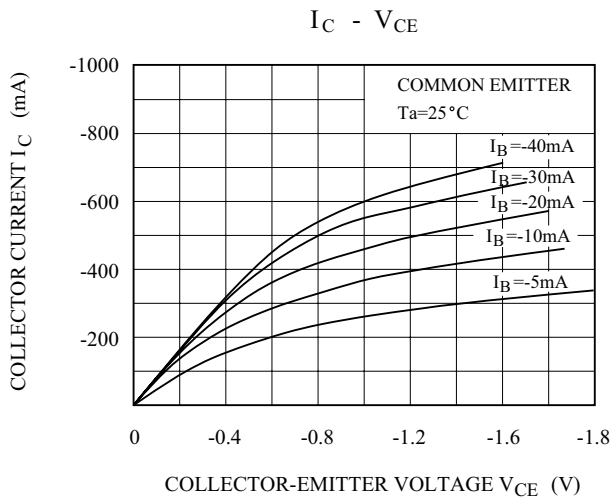
# KTN2907AE

## ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		$I_{CEX}$	$V_{CE}=-30V, V_{EB}=-0.5V$	-	-	-50	nA
Collector Cut-off Current		$I_{CBO}$	$V_{CB}=-50V, I_E=0$	-	-	-10	nA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-60	-	-	V
Collector-Emitter Breakdown Voltage *		$V_{(BR)CEO}$	$I_C=-10mA, I_B=0$	-60	-	-	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5	-	-	V
DC Current Gain *	$h_{FE}(1)$		$I_C=-0.1mA, V_{CE}=-10V$	75	-	-	
	$h_{FE}(2)$		$I_C=-1.0mA, V_{CE}=-10V$	100	-	-	
	$h_{FE}(3)$		$I_C=-10mA, V_{CE}=-10V$	100	-	-	
	$h_{FE}(4)$		$I_C=-150mA, V_{CE}=-10V$	100	-	300	
	$h_{FE}(5)$		$I_C=-500mA, V_{CE}=-10V$	50	-	-	
Collector-Emitter Saturation Voltage *	$V_{CE(sat)1}$		$I_C=-150mA, I_B=-15mA$	-	-	-0.4	V
	$V_{CE(sat)2}$		$I_C=-500mA, I_B=-50mA$	-	-	-1.6	
Base-Emitter Saturation Voltage *	$V_{BE(sat)1}$		$I_C=-150mA, I_B=-15mA$	-	-	-1.3	V
	$V_{BE(sat)2}$		$I_C=-500mA, I_B=-50mA$	-	-	-2.6	
Transition Frequency		$f_T$	$V_{CE}=-20V, I_C=-50mA, f=100MHz$	200	-	-	MHz
Collector Output Capacitance		$C_{ob}$	$V_{CB}=-10V, I_E=0, f=1MHz$	-	-	8	pF
Input Capacitance		$C_{ib}$	$V_{BE}=-2V, I_C=0, f=1.0MHz$	-	-	30	pF
Switching Time	Delay Time	$t_d$	$V_{CC}=-30V, I_C=-150mA$	-	-	10	nS
	Rise Time	$t_r$	$I_{B1}=-15mA$	-	-	40	
	Storage Time	$t_{stg}$	$V_{CC}=-6V, I_C=-150mA$	-	-	80	
	Fall Time	$t_f$	$I_{B1}=-I_{B2}=-15mA$	-	-	30	

\* Pulse Test : Pulse Width  $\leq 300\mu s$ , Duty Cycle  $\leq 2\%$ .

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