

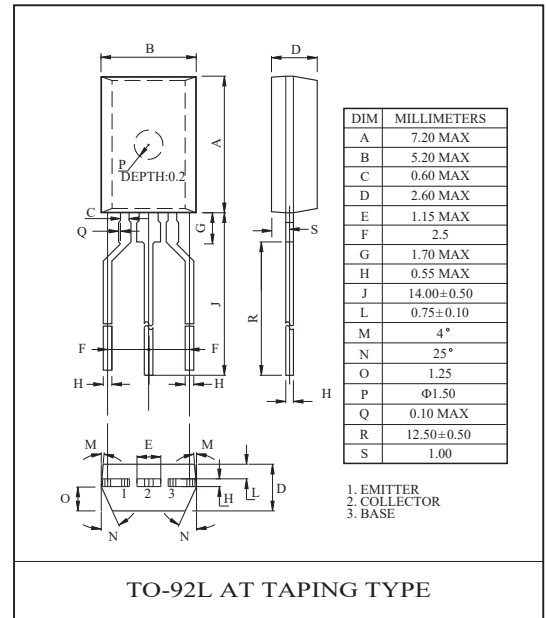
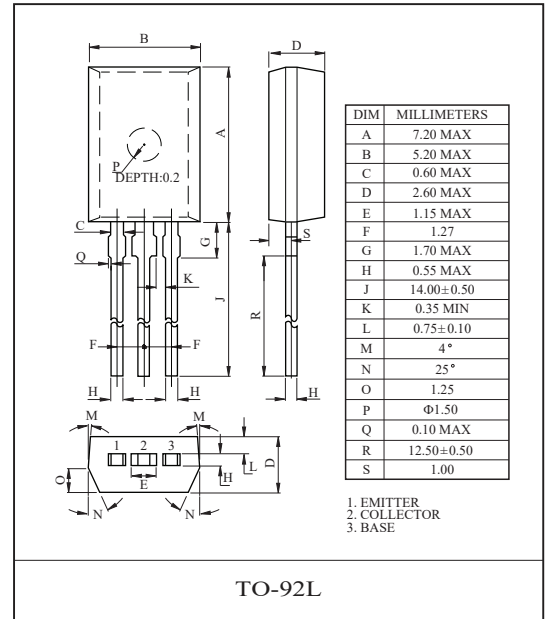
POWER AMPLIFIER APPLICATIONS.  
POWER SWITCHING APPLICATIONS.

### FEATURES

- Low Collector Saturation Voltage  
:  $V_{CE(sat)}=0.5V(\text{Max.}) (I_C=1A)$
- High Speed Switching Time :  $t_{stg}=1.0 \mu s(\text{Typ.})$
- Complementary to KTA1281.

### MAXIMUM RATING (Ta=25°C)

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	$I_C$	2	A
Emitter Current	$I_E$	-2	A
Collector Power Dissipation	$P_C$	1	W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C



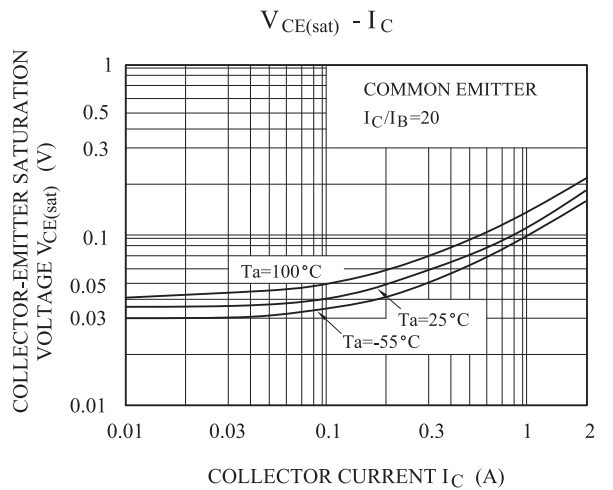
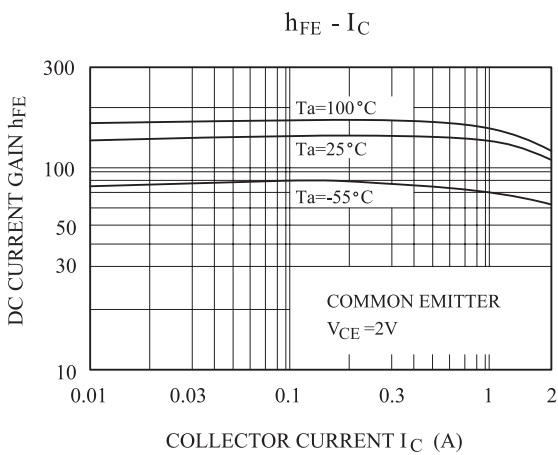
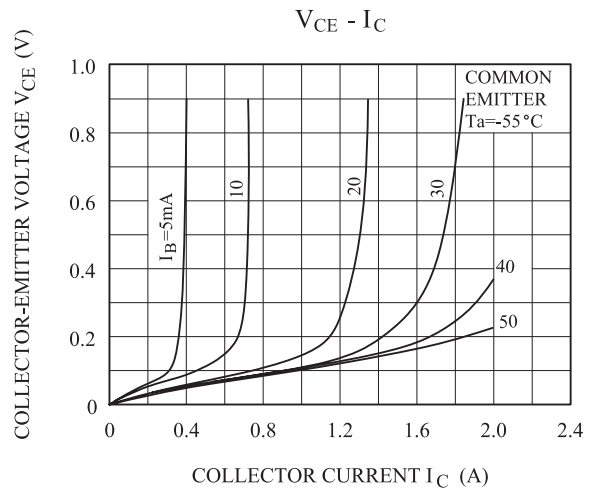
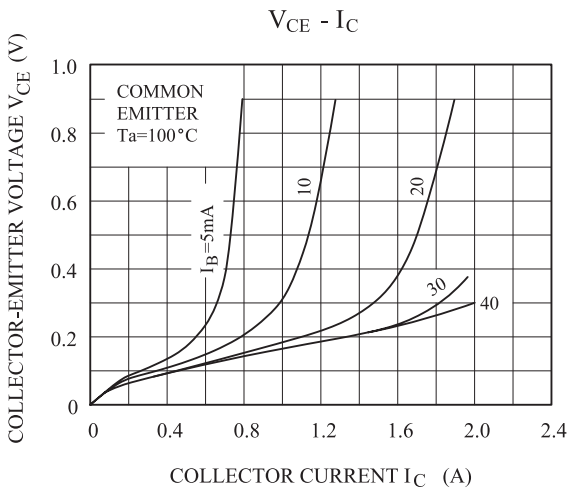
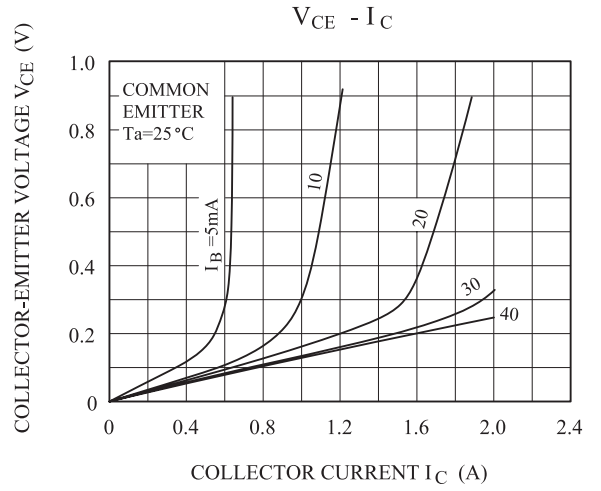
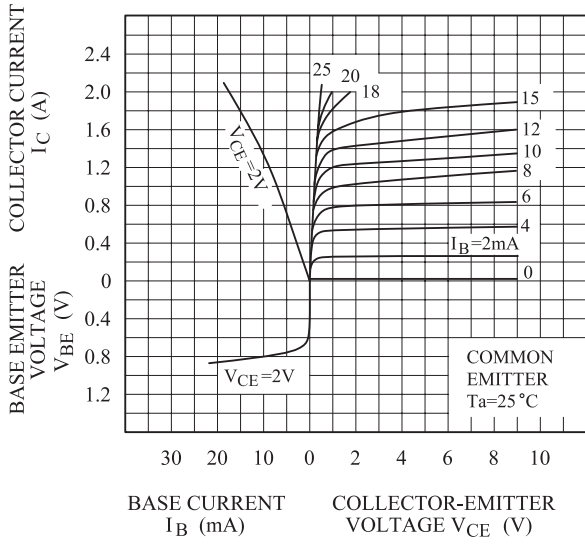
### ELECTRICAL CHARACTERISTICS (Ta=25°C)

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	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	50	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=100mA, I_B=0$	5	-	-	V
DC Current Gain	$h_{FE}(1)$ (Note)	$V_{CE}=2V, I_C=0.5A$ (Note)	70	-	240	
	$h_{FE}(2)$ (Note)	$V_{CE}=2V, I_C=1.5A$	40	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=1A, I_B=0.05A$	-	-	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=1A, I_B=0.05A$	-	-	1.2	V
Transition Frequency	$f_T$	$V_{CE}=2V, I_C=0.5A$	-	100	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	30	-	pF
Switching Time	Turn-on Time	$t_{on}$	-	0.1	-	$\mu s$
	Storage Time	$t_{stg}$	-	1.0	-	
	Fall Time	$t_f$	-	0.1	-	

$I_{B1}=I_{B2}=0.05A$   
DUTY CYCLE  $\leq 1\%$

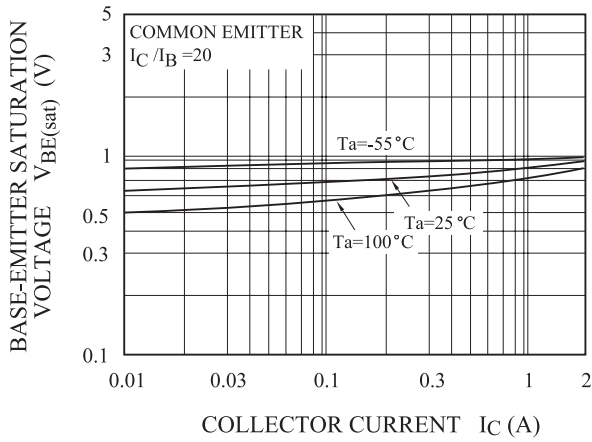
Note :  $h_{FE}$  Classification 0:70 ~ 140, Y:120 ~ 240

## STATIC CHARACTERISTICS

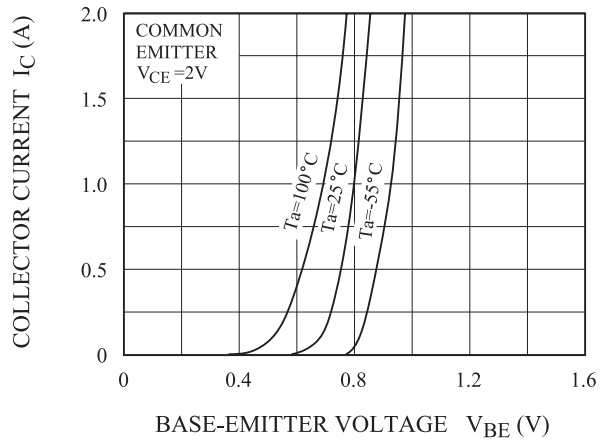


# KTC3209

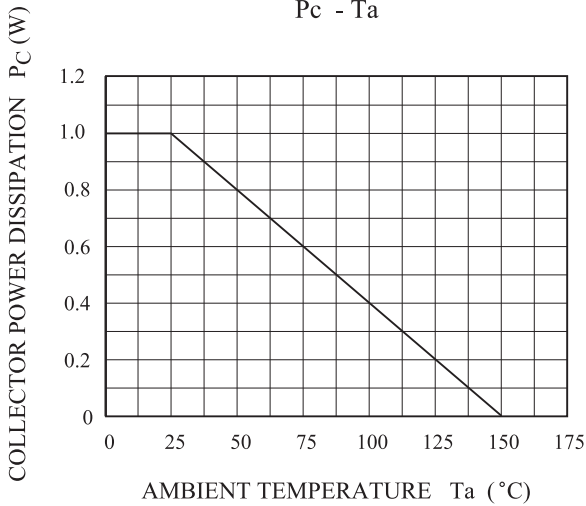
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$P_c - T_a$



SAFE OPERATING AREA

