

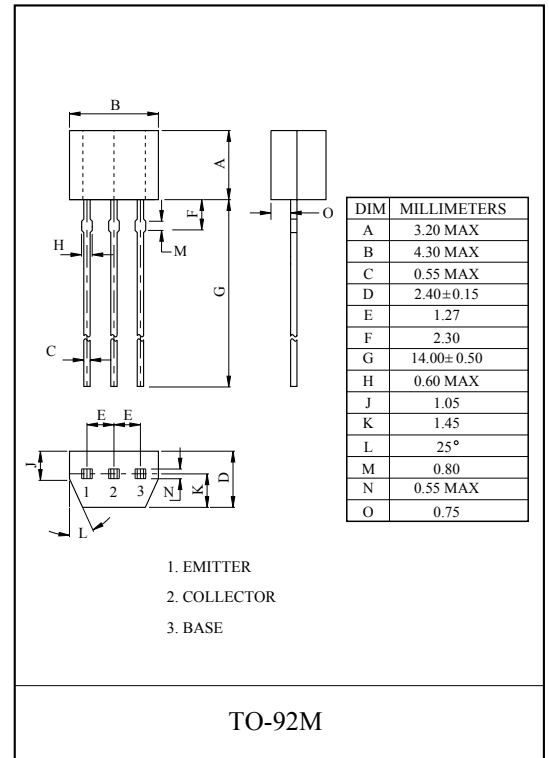
GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

### FEATURES

- Excellent  $h_{FE}$  Linearity  
:  $h_{FE(2)}=25\text{Min.}$  :  $V_{CE}=6\text{V}$ ,  $I_C=400\text{mA}$ .
- 1 Watt Amplifier Application.
- Complementary to KTA1021.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	35	V
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	500	mA
Emitter Current	$I_E$	-500	mA
Collector Power Dissipation	$P_C$	400	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ\text{C}$

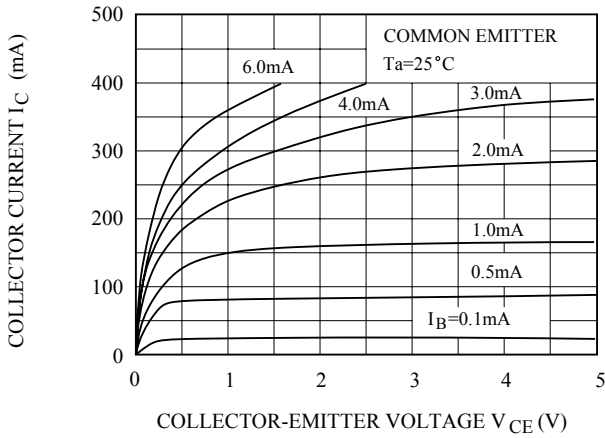


### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

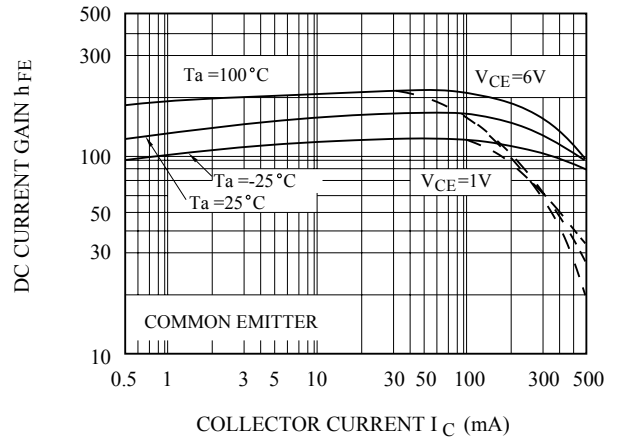
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=35\text{V}$ , $I_E=0$	-	-	0.1	$\mu\text{A}$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5\text{V}$ , $I_C=0$	-	-	0.1	$\mu\text{A}$
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1\text{V}$ , $I_C=100\text{mA}$	100	-	240	
	$h_{FE(2)}$	$V_{CE}=6\text{V}$ , $I_C=400\text{mA}$	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100\text{mA}$ , $I_B=10\text{mA}$	-	0.1	0.25	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=1\text{V}$ , $I_C=100\text{mA}$	-	0.8	1.0	V
Transition Frequency	$f_T$	$V_{CB}=6\text{V}$ , $I_C=20\text{mA}$	-	300	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=6\text{V}$ , $I_E=0$ , $f=1\text{MHz}$	-	7.0	-	pF

# KTC1020

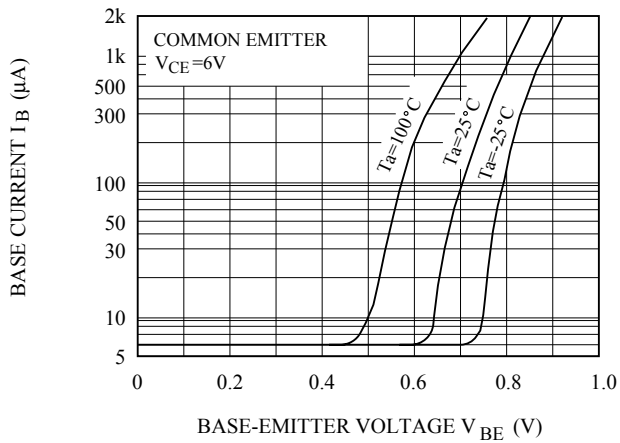
$I_C - V_{CE}$



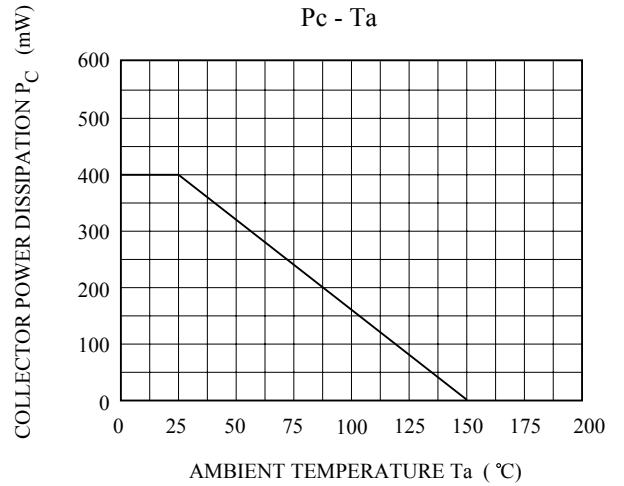
$h_{FE} - I_C$



$I_B - V_{BE}$



$P_c - T_a$



$V_{CE(sat)} - I_C$

