

GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

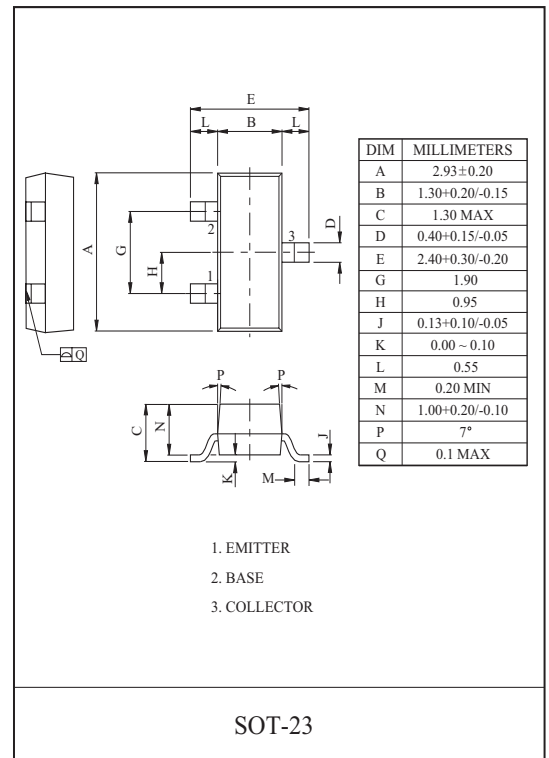
### FEATURES

- Excellent  $h_{FE}$  Linearity.
- Complementary to KTC9012S.
- Suffix U : Qualified to AEC-Q101.  
ex) KTC9013S-RTK/HU

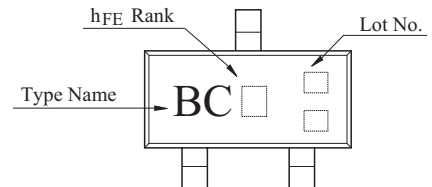
### MAXIMUM RATING (Ta=25 )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	40	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	$P_C$ *	350	mW
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

\*  $P_C$  : Package Mounted On 99.5% Alumina (10 × 8 × 0.6mm)



### Marking



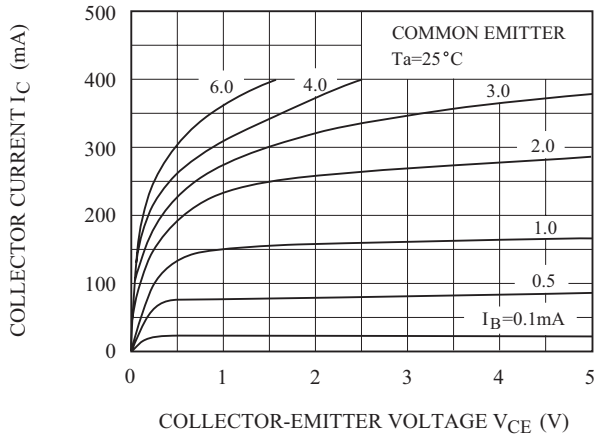
### ELECTRICAL CHARACTERISTICS (Ta=25 )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=35V, I_E=0$	-	-	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	$\mu A$
DC Current Gain	$h_{FE}$ (Note)	$V_{CE}=1V, I_C=50mA$	96	-	246	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$	-	0.1	0.25	V
Base-Emitter Voltage	$V_{BE}$	$I_C=100mA, V_{CE}=1V$	-	0.8	1.0	V
Transition Frequency	$f_T$	$V_{CE}=6V, I_C=20mA, f=100MHz$	140	-	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=6V, I_E=0, f=1MHz$	-	7.0	-	pF

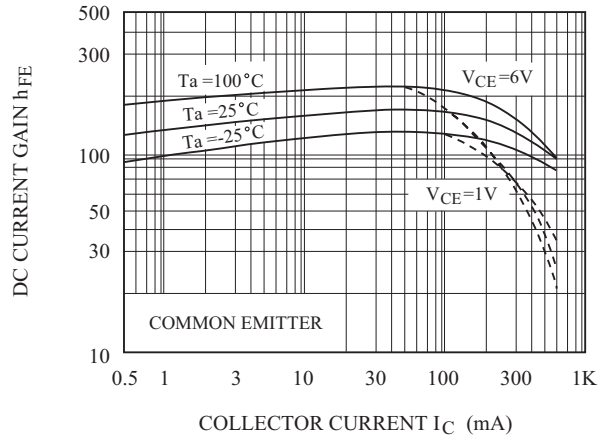
Note :  $h_{FE}$  Classification F:96 135, G:118 166, H:144 202, I:176 246

# KTC9013S

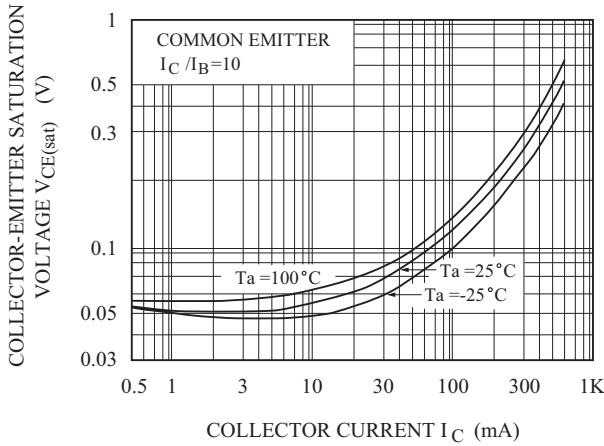
$I_C - V_{CE}$   
(LOW VOLTAGE REGION)



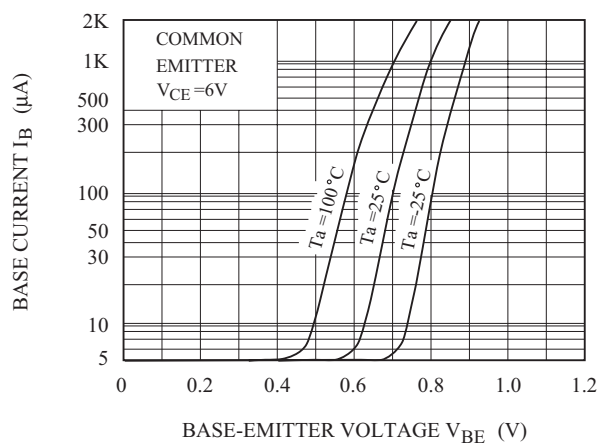
$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



$I_B - V_{BE}$



$P_c - T_a$

