

SWITCHING APPLICATION.

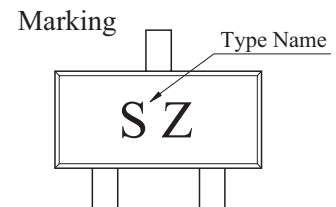
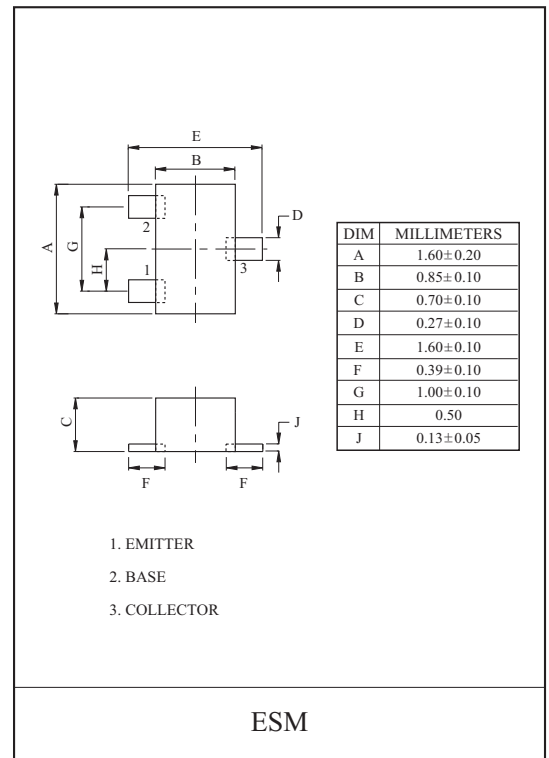
FEATURES

- A Collector Current is Large.
- Collector Saturation Voltage is low.
: $V_{CE(sat)} \approx -250\text{mV}$ at $I_C = -200\text{mA}/I_B = -10\text{mA}$.
- Complementary to KTC4072E.
- Suffix U : Qualified to AEC-Q101.
ex) KTA2012E-RTK/HU

MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-15	V
Collector-Emitter Voltage	V_{CEO}	-12	V
Emitter-Base Voltage	V_{EBO}	-6	V
Collector Current	I_C	-500	mA
	I_{CP}^*	-1	A
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

* Single pulse $P_w = 1\text{mS}$.

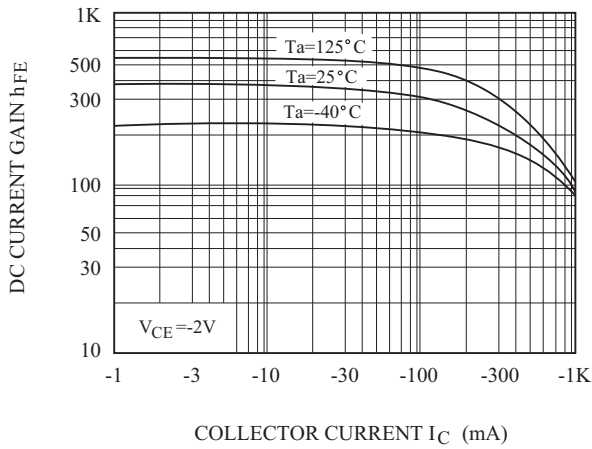


ELECTRICAL CHARACTERISTICS (Ta=25 °C)

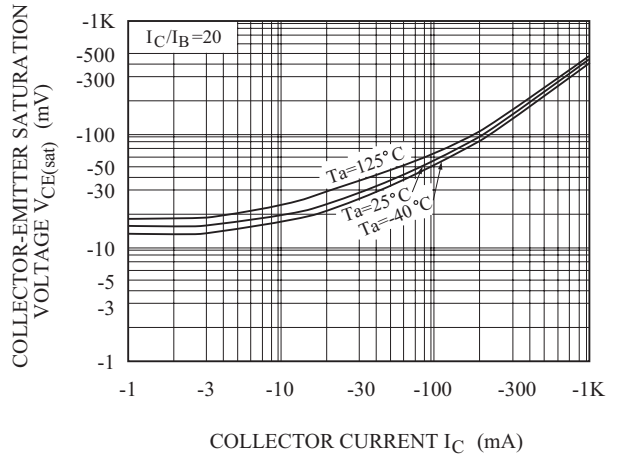
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -15\text{V}, I_E = 0$	-	-	-100	nA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -10 \mu\text{A}$	-15	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1\text{mA}$	-12	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -10 \mu\text{A}$	-6	-	-	V
DC Current Gain	h_{FE}	$V_{CE} = -2\text{V}, I_C = -10\text{mA}$	270	-	680	-
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -200\text{mA}, I_B = -10\text{mA}$	-	-100	-250	mV
Transition Frequency	f_T	$V_{CE} = -2\text{V}, I_C = -10\text{mA}, f_T = 100\text{MHz}$	-	260	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$	-	6.5	-	pF

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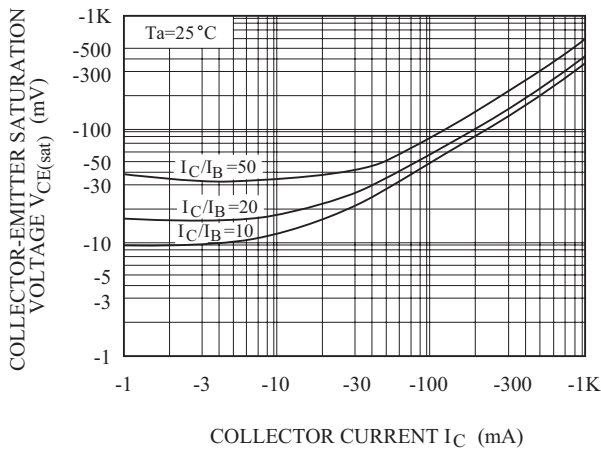
$h_{FE} - I_C$



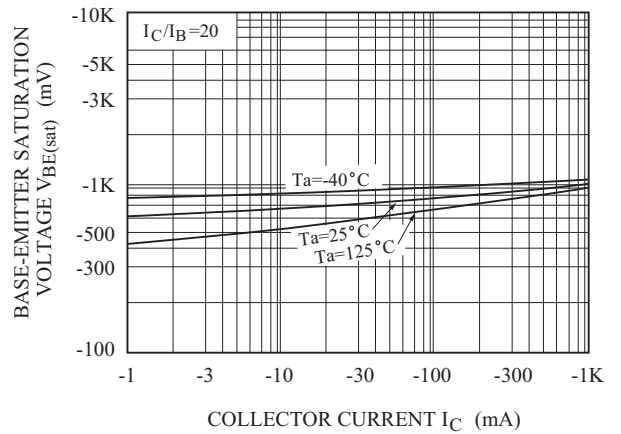
$V_{CE(sat)} - I_C$



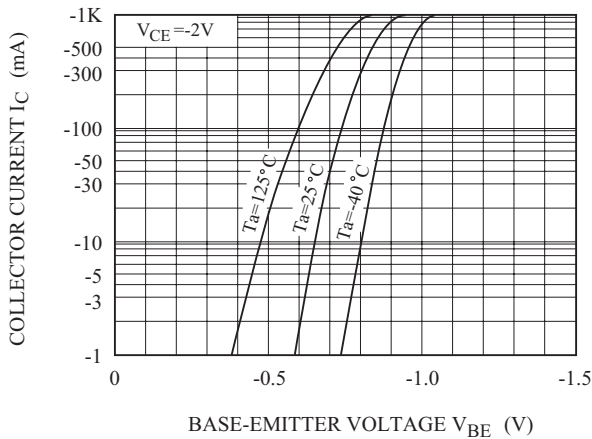
$V_{CE(sat)} - I_C$



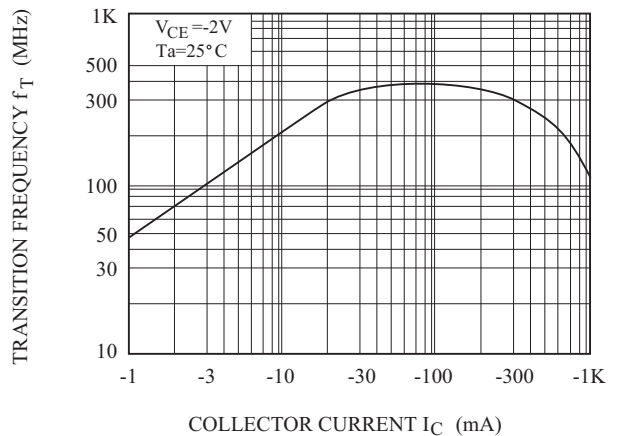
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$

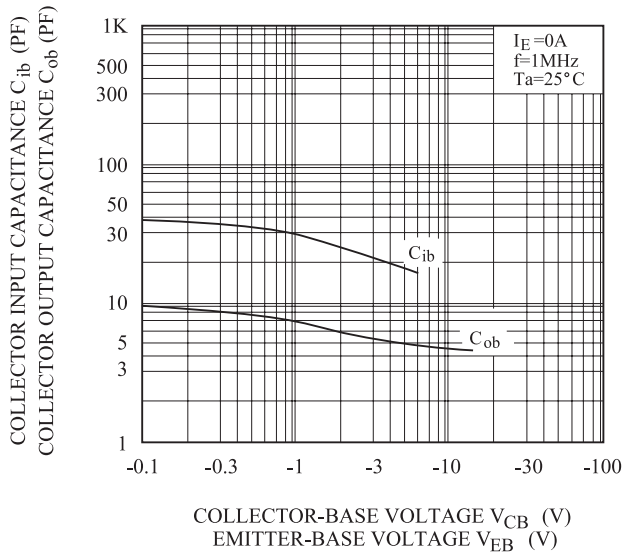


$f_T - I_C$



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$C_{ob} - V_{CB}$, $C_{ib} - V_{EB}$



$P_c - T_a$

