

### SWITCHING APPLICATION.

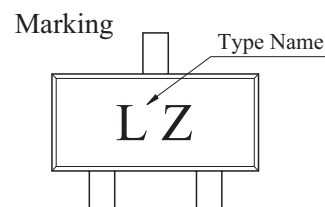
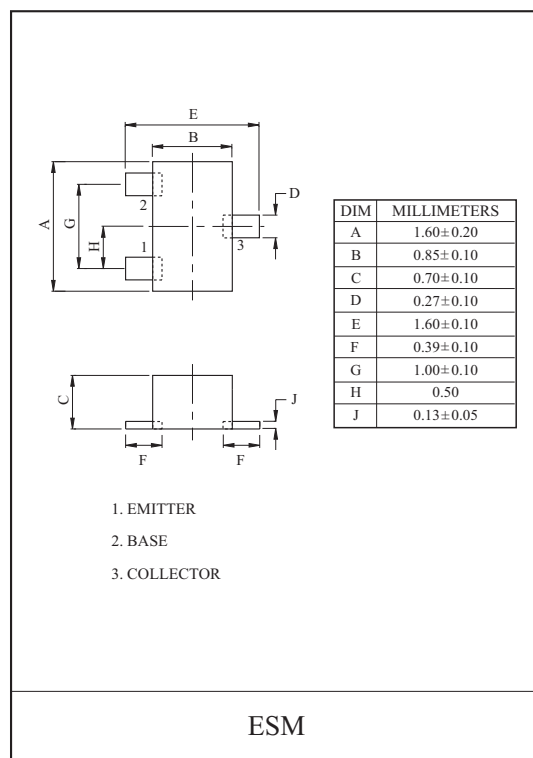
### FEATURES

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

### MAXIMUM RATING (Ta=25 )

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  $P_w=1\text{mS}$ .

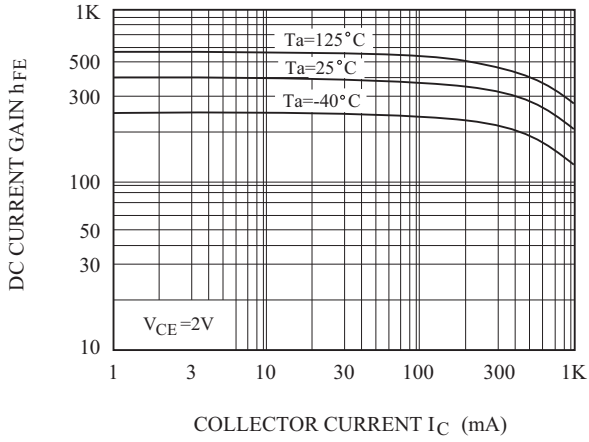


### ELECTRICAL CHARACTERISTICS (Ta=25 )

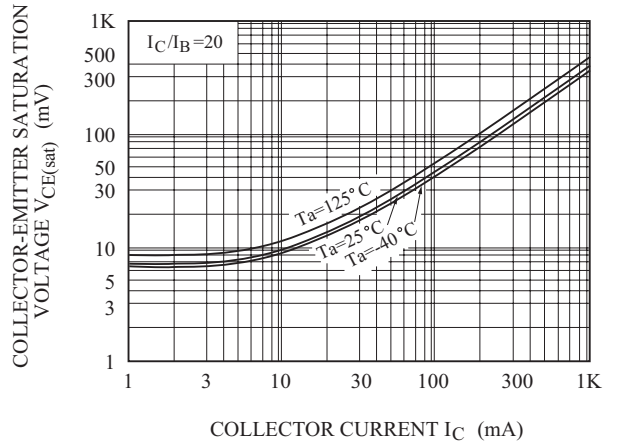
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=15\text{V}, I_E=0$	-	-	100	nA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=10\ \mu\text{A}$	15	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$	12	-	-	V
Emitter-Base Breakdown 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	$V_{CE(sat)}$	$I_C=200\text{mA}, I_B=10\text{mA}$	-	90	250	mV
Transition Frequency	$f_T$	$V_{CE}=2\text{V}, I_C=10\text{mA}, f_T=100\text{MHz}$	-	320	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	-	7.5	-	pF

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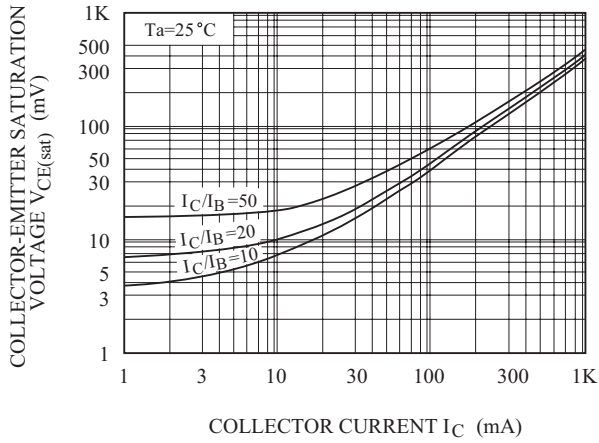
$h_{FE} - I_C$



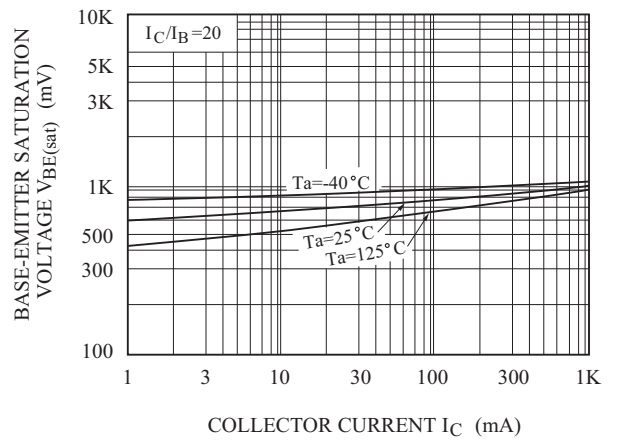
$V_{CE(sat)} - I_C$



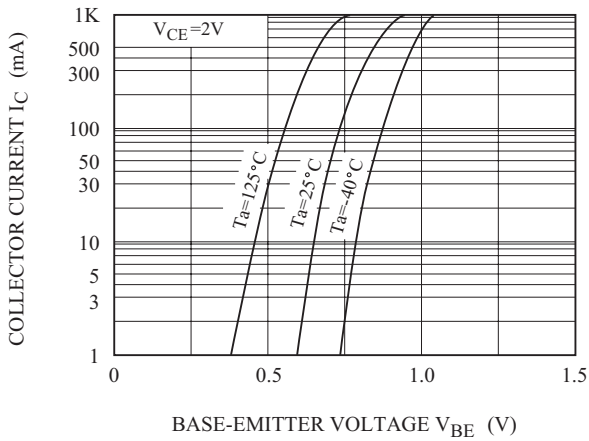
$V_{CE(sat)} - I_C$



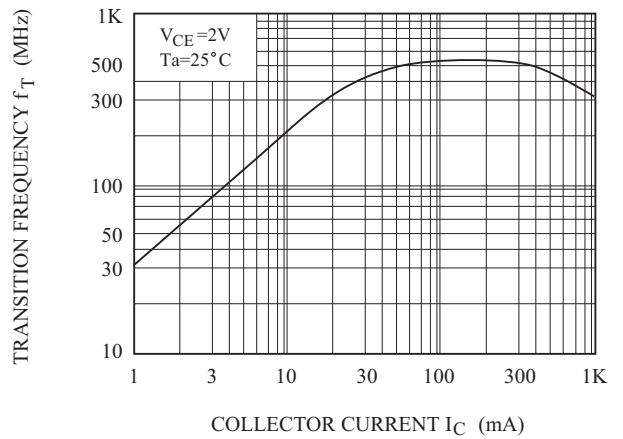
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$

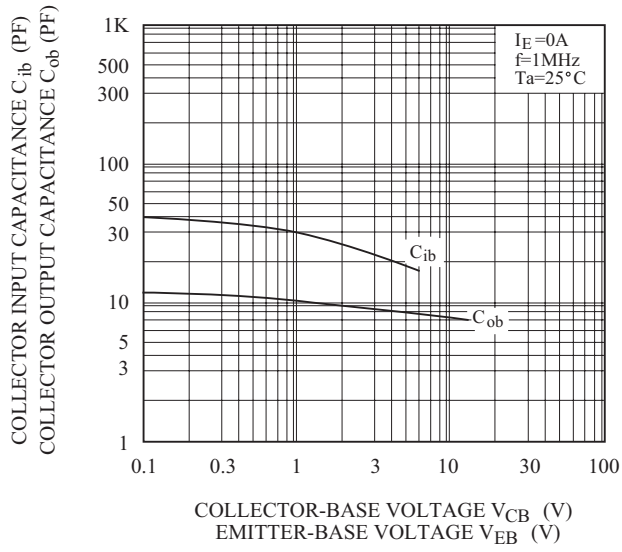


$f_T - I_C$



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



$P_c - T_a$

