

LOW FREQUENCY AMPLIFIER DRIVER

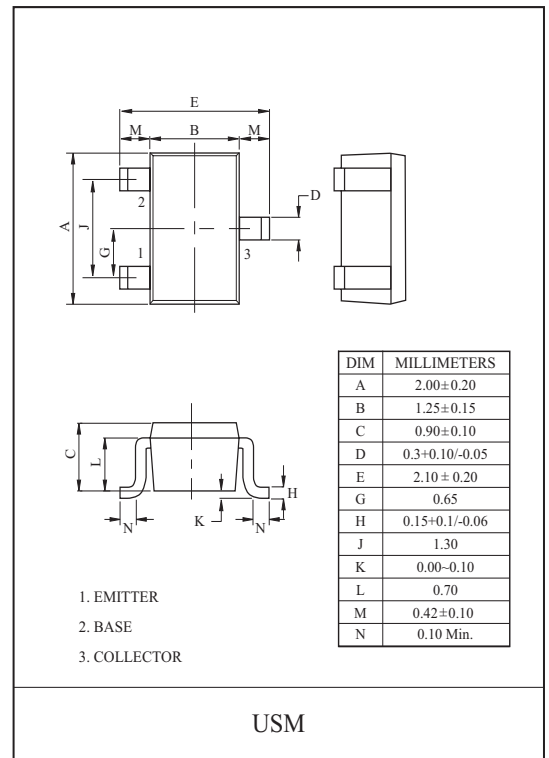
FEATURES

- A Collector Current is large.
- Collector Saturation Voltage is low.
 $V_{CE(sat)} = -200\text{mV}$ at $I_C=500\text{mA}$, $I_B=-25\text{mA}$.
- Suffix **U** : Qualified to AEC-Q101.
ex) KTA1532U-RTK/HU

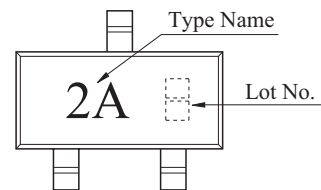
MAXIMUM RATING (Ta=25)

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	DC	I_C	-1.5	A
	Pulse	I_{CP}	-3	
Collector Power Dissipation		P_C^*	0.2	W
Junction Temperature		T_j	150	
Storage Temperature Range		T_{stg}	-55 150	

* Package Mounted on a Ceramic Board (600mm² × 0.8mm)



MARKING



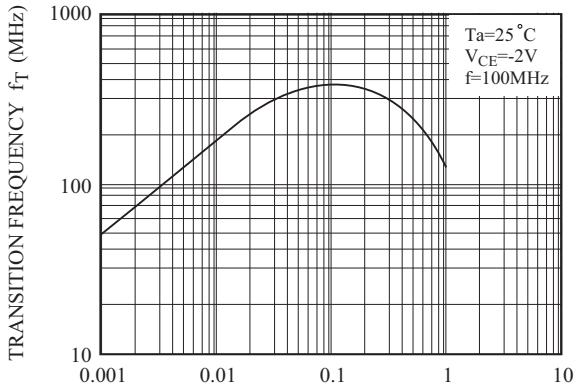
ELECTRICAL CHARACTERISTICS (Ta=25)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=-15\text{V}$, $I_E=0$	-	-	-0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-6\text{V}$, $I_C=0$	-	-	-0.1	μA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-10\mu\text{A}$, $I_E=0$	-15	-	-	V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$, $I_B=0$	-12	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}$, $I_C=0$	-6	-	-	V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}$, $I_B=-25\text{mA}$	-	-110	-200	mV
DC Current Gain	h_{FE}	$V_{CE}=-2\text{V}$, $I_C=-200\text{mA}$	270	-	680	
Transition Frequency	f_T	$V_{CE}=-2\text{V}$, $I_E=200\text{mA}$, $f=100\text{MHz}^*$	-	400	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $f=1\text{MHz}$	-	12	-	pF

*Pulsed

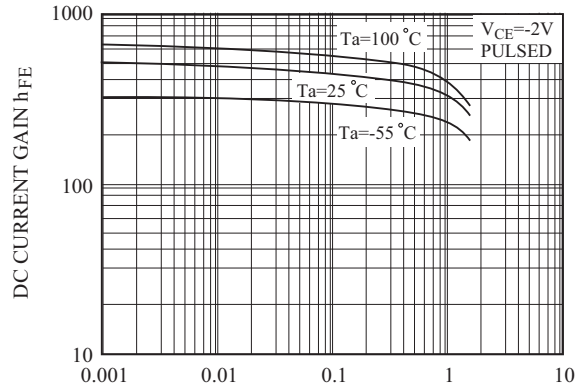
KTA1532U

$f_T - I_E$



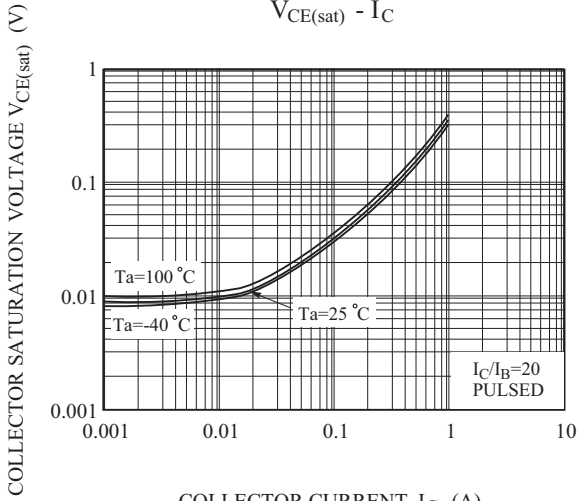
EMITTER CURRENT I_E (A)

$h_{FE} - I_C$



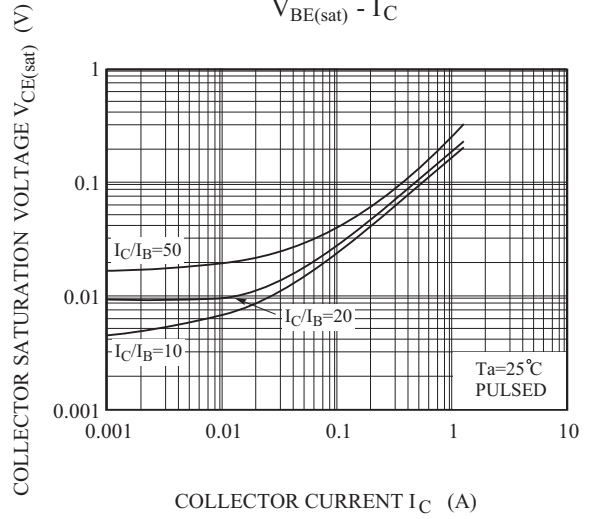
COLLECTOR CURRENT I_C (A)

$V_{CE(sat)} - I_C$



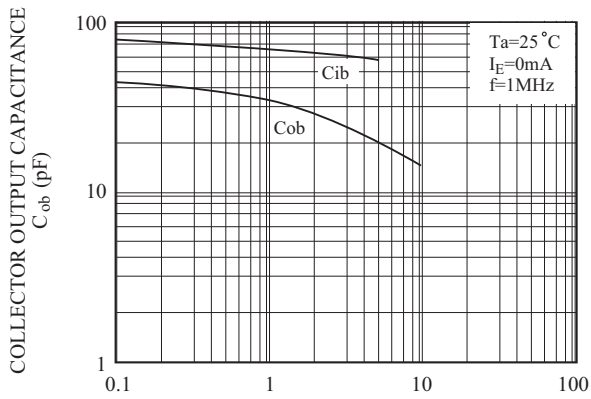
COLLECTOR CURRENT I_C (A)

$V_{BE(sat)} - I_C$



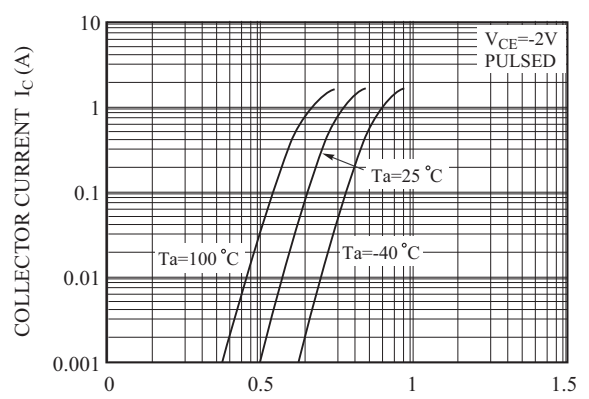
COLLECTOR CURRENT I_C (A)

$C_{ob} - V_{CB}$



COLLECTOR TO BASE VOLTAGE V_{CB} (V)

$I_C - V_{BE}$



BASE TO EMITTER VOLTAGE V_{BE} (V)