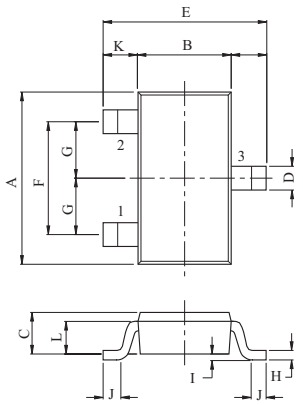
KTA1551T

EPITAXIAL PLANAR PNP TRANSISTOR

RELAY DRIVERS, LAMP DRIVERS,
MOTOR DRIVERS APPLICATION.

FEATURES

- Adoption of MBIT Processes.
- Large Current Capacitance.
- Low Collector-to-Emitter Saturation Voltage.
- High-Speed Switching.
- Ultrasmall Package Facilitates Miniaturization in end Products.
- High Allowable Power Dissipation.
- Complementary to KTC3551T.
- Suffix U : Qualified to AEC-Q101.
  ex) KTA1551T-RTK/HU

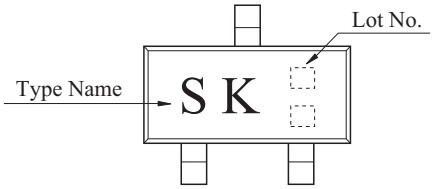


DIM	MILLIMETERS
A	2.9±0.2
B	1.6+0.2/-0.1
C	0.70±0.05
D	0.4±0.1
E	2.8+0.2/-0.3
F	1.9±0.2
G	0.95
H	0.16±0.05
I	0.00-0.10
J	0.25+0.25/-0.15
K	0.60
L	0.55

1. EMITTER
2. BASE
3. COLLECTOR

TSM

Marking

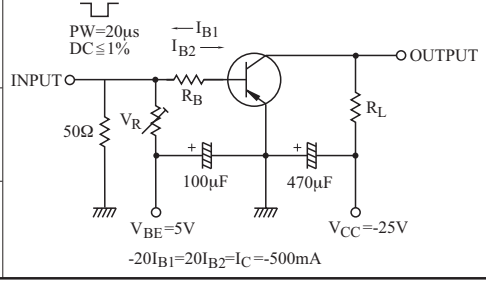


MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-50	V
Collector-Emitter Voltage		V_{CES}	-50	V
		V_{CEO}	-50	
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current	DC	I_C	-1.0	A
	Pulse	I_{CP}	-3	
Base Current		I_B	-200	mA
Collector Power Dissipation		P_C*	0.9	W
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55 150	℃

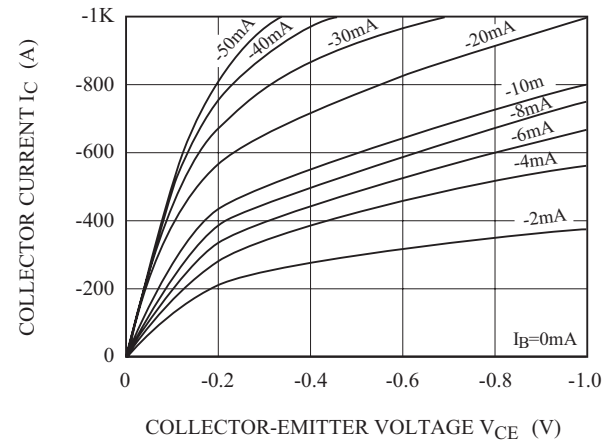
* Package mounted on a ceramic board (600㎟×0.8㎜)

ELECTRICAL CHARACTERISTICS (Ta=25℃)

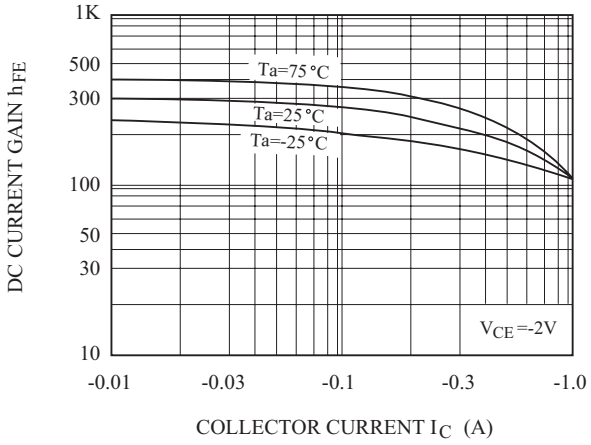
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=-40V, I_E=0	-	-	-0.1	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=-4V, I_C=0	-	-	-0.1	μA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	I_C=-10 μA, I_E=0	-50	-	-	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CES}$	I_C=-100 μA, V_{BE}=0	-50	-	-	V
		$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-50	-	-	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	I_E=-10 μA, I_C=0	-5	-	-	V
Collector-Emitter Saturation Voltage		$V_{CE(sat)1}$	I_C=-500mA, I_B=-10mA	-	-280	-430	mV
		$V_{CE(sat)2}$	I_C=-300mA, I_B=-6mA	-	-145	-220	mV
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=-500mA, I_B=-10mA	-	-0.81	-1.2	V
DC Current Gain		h_{FE}	V_{CE}=-2V, I_C=-100mA	200	-	560	
Transition Frequency		f_T	V_{CE}=-10V, I_C=-300mA	-	420	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=-10V, f=1MHz	-	9	-	pF
Switching Time	Turn-On Time	t_{on}		-	35	-	nS
	Storage Time	t_{stg}		-	170	-	
	Fall Time	t_f		-	30	-	

$-20I_{B1}=20I_{B2}=I_C=-500mA$

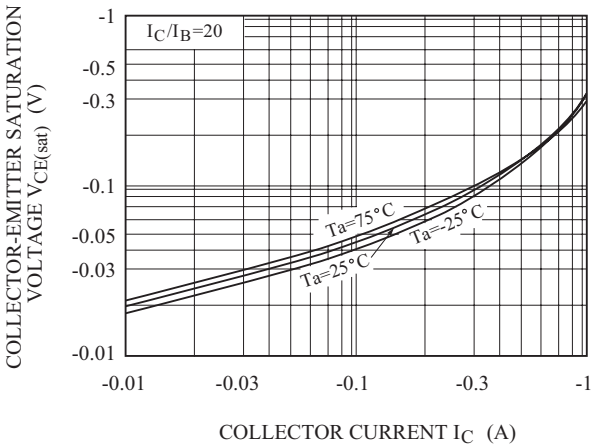
I_C - V_{CE}



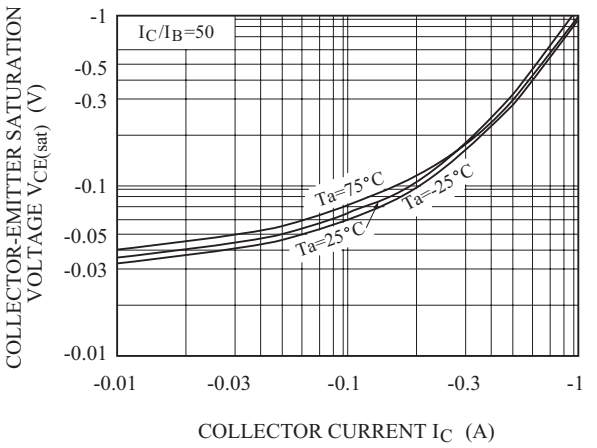
h_{FE} - I_C



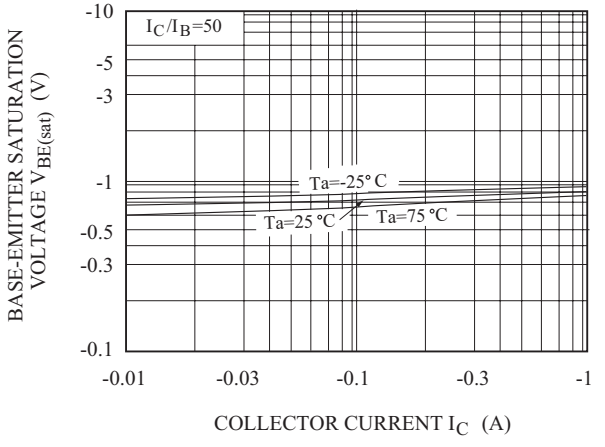
$V_{CE(sat)}$ - I_C



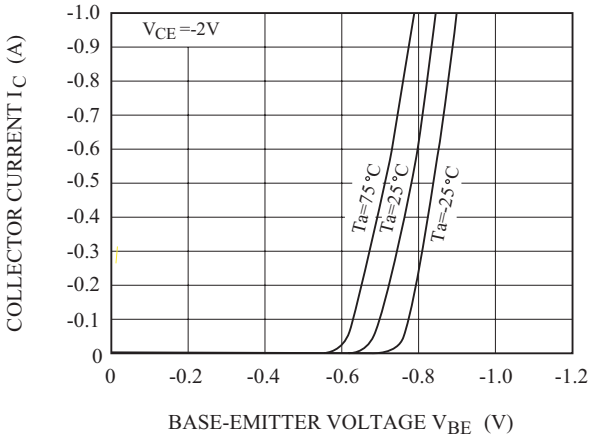
$V_{CE(sat)}$ - I_C



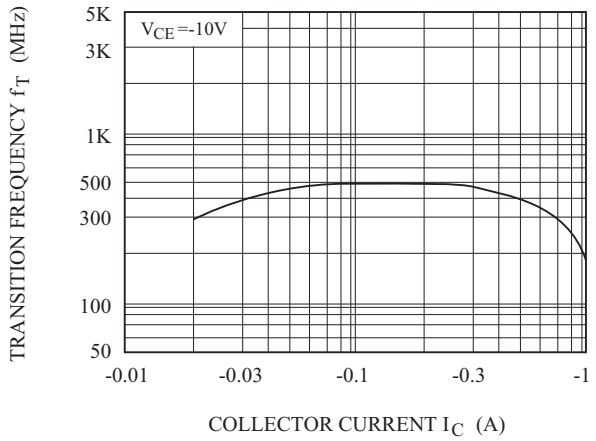
$V_{BE(sat)}$ - I_C



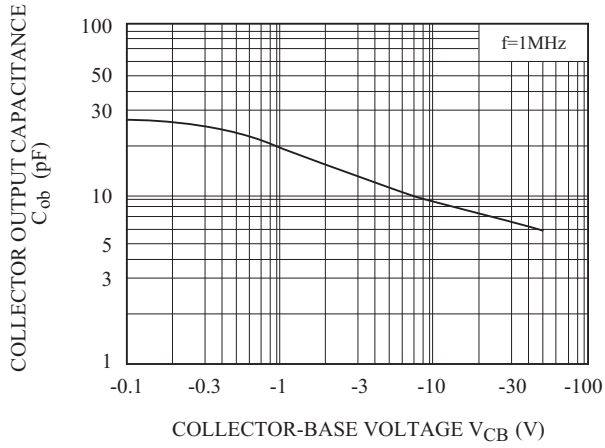
I_C - V_{BE}



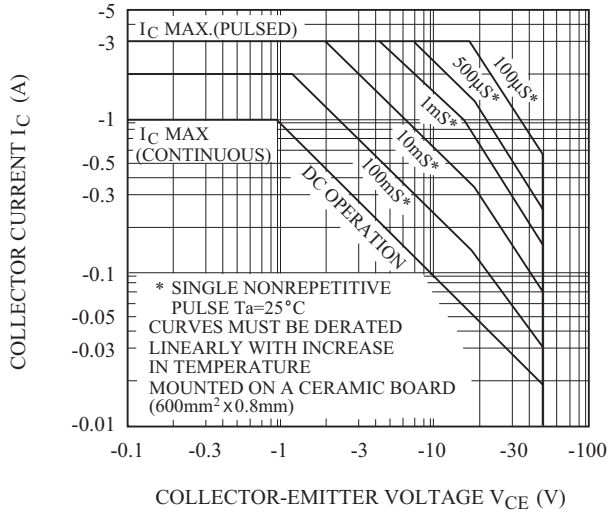
f_T - I_C



C_{ob} - V_{CB}



SAFE OPERATING AREA



Pc - Ta