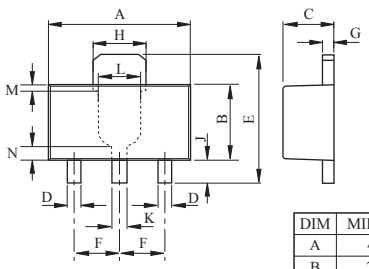
POWER AMPLIFIER APPLICATIONS.
POWER SWITCHING APPLICATIONS.

FEATURES

- Low Saturation Voltage
  : $V_{CE(sat)}$=-0.5V(Max.) (I_C=-1A)
- High Speed Switching Time : t_{stg}=1.0 μS(Typ.)
- P_C=1～2W (Mounted on Ceramic Substrate)
- Small Flat Package.
- Complementary to KTC4379.
- Suffix **U** : Qualified to AEC-Q101.
  ex) KTA1666-Y-RTF/H**U**



DIM	MILLIMETERS
A	4.70 MAX
B	2.50±0.20
C	1.70 MAX
D	0.45+0.15/-0.10
E	4.25 MAX
F	1.50±0.10
G	0.40 TYP
H	1.75 MAX
J	0.75 MIN
K	0.5+0.10/-0.05
L	1.40±0.10
M	0.19±0.10
N	0.47±0.10

1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

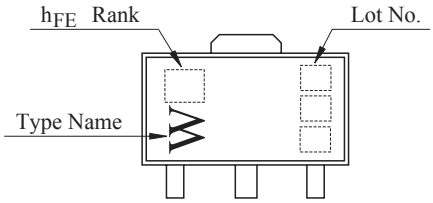
SOT-89

MAXIMUM RATING (Ta=25℃)

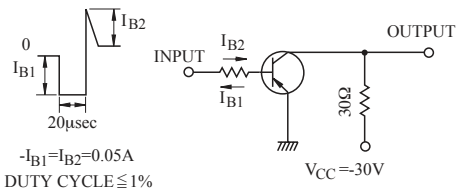
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-2	A
Base Current	I_B	-0.4	A
Collector Power Dissipation	P_C	500	mW
	P_C*	1	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

P_C* : KTA1666 mounted on ceramic substrate (250mm²x0.8t)

Marking



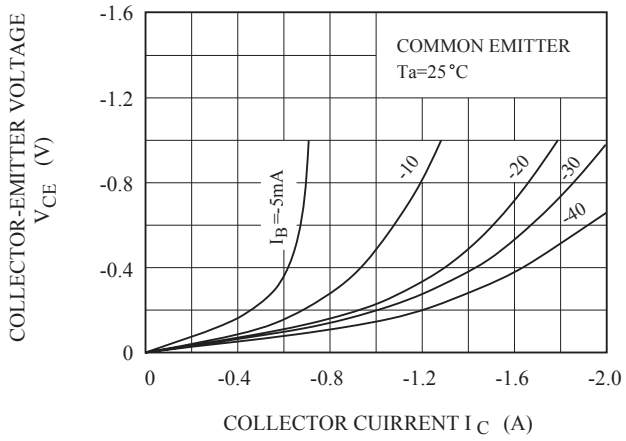
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	V_{CB}=-50V, I_E=0	-	-	-0.1	μA
Emitter Cut-off Current		I_{EBO}	V_{EB}=-5V, I_C=0	-	-	-0.1	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-50	-	-	V
DC Current Gain		h_{FE} (1) (Note2)	V_{CE}=-2V, I_C=-0.5A (Note 1)	70	-	240	
		h_{FE} (2)	V_{CE}=-2V, I_C=-1.5A (Note 1)	40	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	I_C=-1A, I_B=-0.05A (Note 1)	-	-	-0.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	I_C=-1A, I_B=-0.05A (Note 1)	-	-	-1.2	V
Transition Frequency		f_T	V_{CE}=-2V, I_C=-0.5A	-	120	-	MHz
Collector Output Capacitance		C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	40	-	pF
Switching Time	Turn-on Time	t_{on}		-	0.1	-	μS
	Storage Time	t_{stg}		-	1.0	-	
	Fall Time	t_f		-	0.1	-	

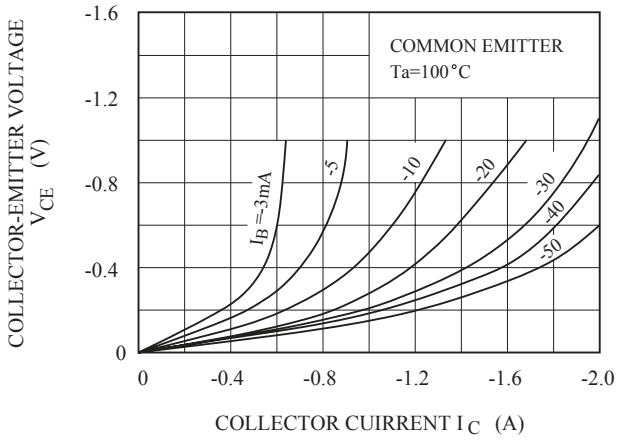
$-I_{B1}=I_{B2}$=0.05A
DUTY CYCLE≦1%

Note 1 : Pulse width≦300 μS, Duty Cycle≦2%
Note 2 : h_{FE}(1) Classification 0:70～140, Y:120～240

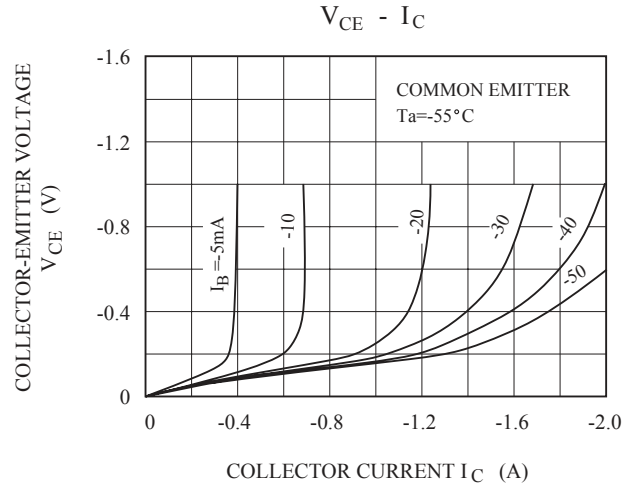
V_{CE} - I_C



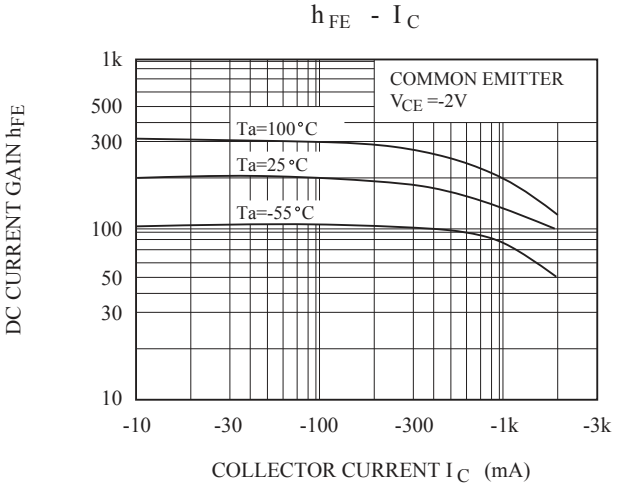
V_{CE} - I_C



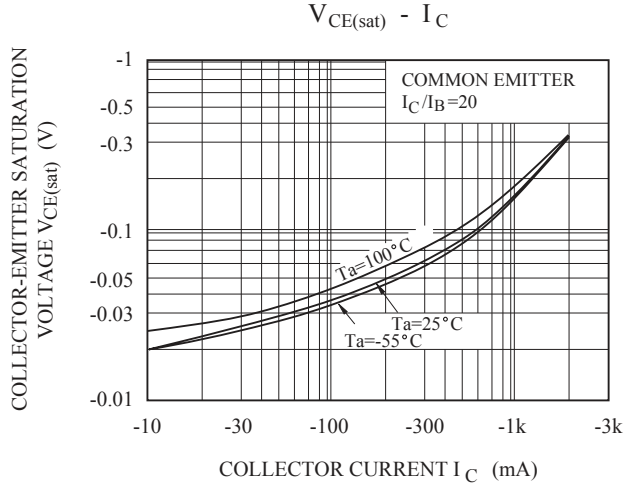
V_{CE} - I_C



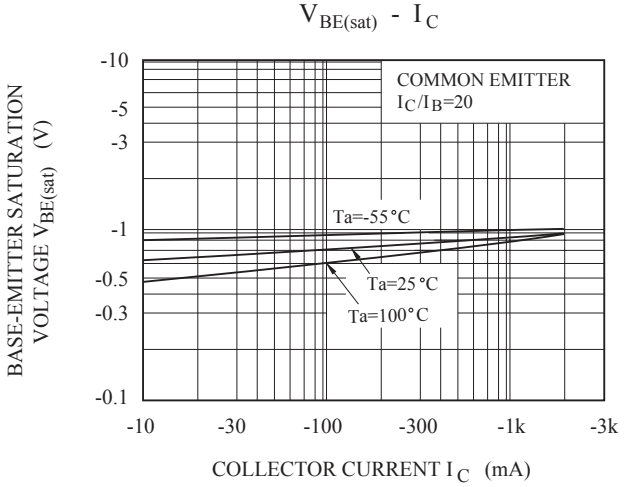
h_{FE} - I_C



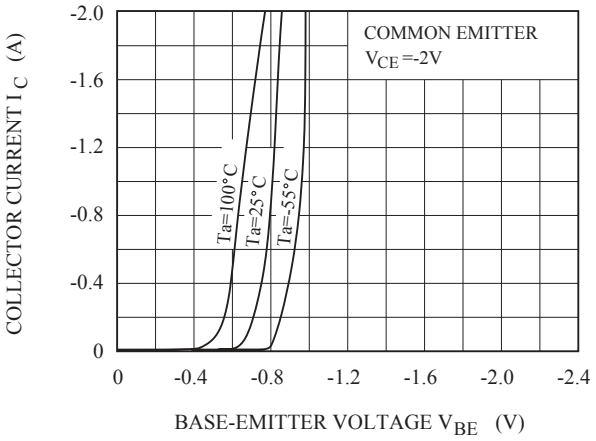
$V_{CE(sat)}$ - I_C



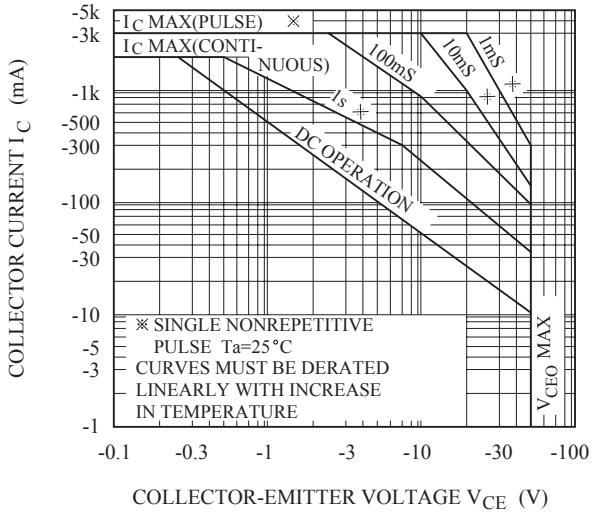
$V_{BE(sat)}$ - I_C



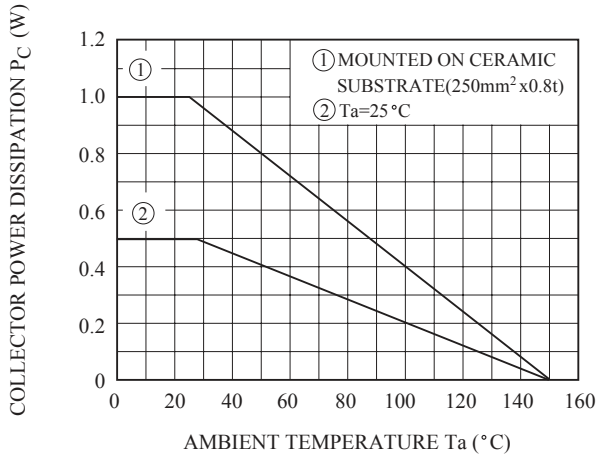
I_C - V_{BE}



SAFE OPERATING AREA



Pc - Ta



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2. When you intend to use these products with equipment or device which require an extremely high of reliability and special applications (such as automobile, air travel aerospace, transportation equipment, life support, system and safety devices) in which special quality and reliability and the failure or malfunction of products may directly jeopardize or harm the human body or damage to property and any application other than the standard application intended, please be sure to consult with our sales representative in advance.

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