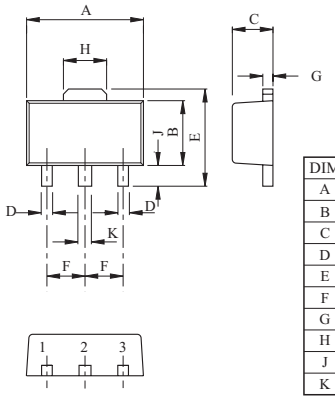
KTC4379

EPITAXIAL PLANAR NPN TRANSISTOR

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}=1.0μS(Typ.)
- P_C=1 ~2W (Mounted on Ceramic Substrate)
- Small Flat Package.
- Complementary to KTA1666.



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

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

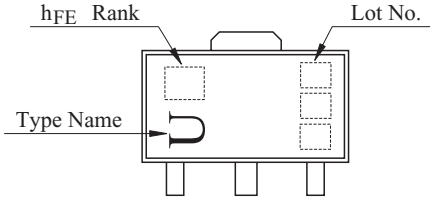
SOT-89

MAXIMUM RATING (Ta=25℃)

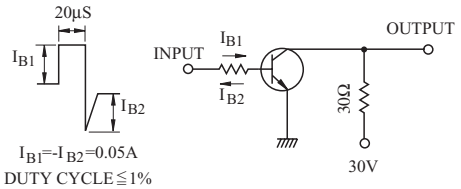
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	2	A
Base Current	I_B	0.4	A
Collector Power Dissipation	P_C	500	mW
	P_C*	1	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}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

P_C* : KTC4379 mounted on ceramic substrate (250mm²x0.8t)

Marking



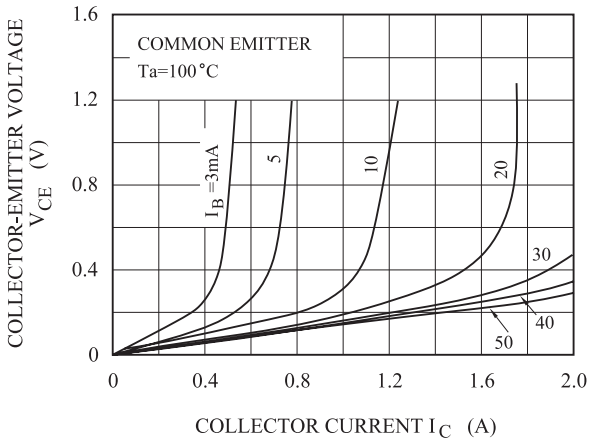
ELECTRICAL CHARACTERISTICS (Ta=25℃)

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	-	30	-	pF
Switching Time	Turn-on Time	t_{on}		-	0.1	-	μS
	Storage Time	t_{stg}		-	1.0	-	
	Fall Time	t_f		-	0.1	-	

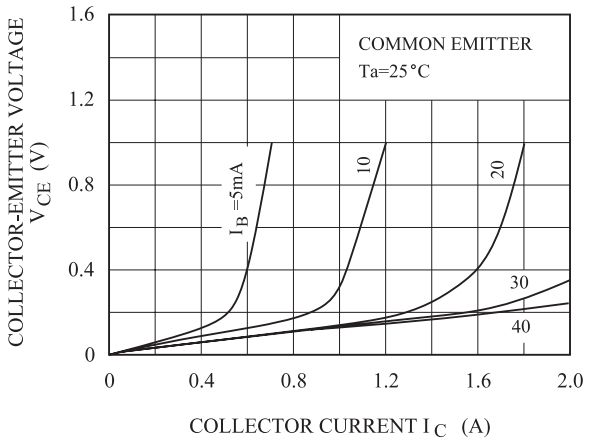
Note 1 : Pulse width≦300μS, Duty Cycle≦1%

Note 2 : h_{FE}(1) Classification 0:70 ~140, Y:120 ~240

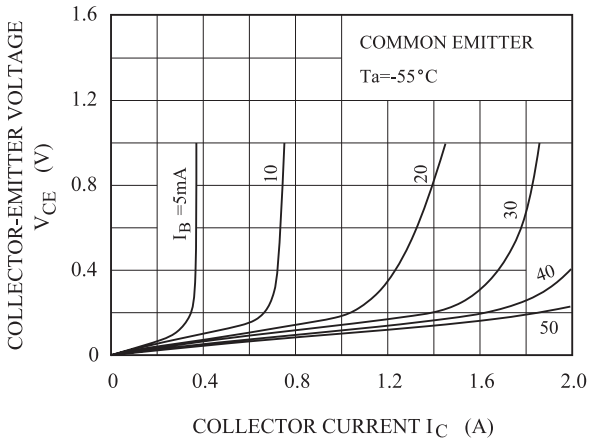
V_{CE} - I_C



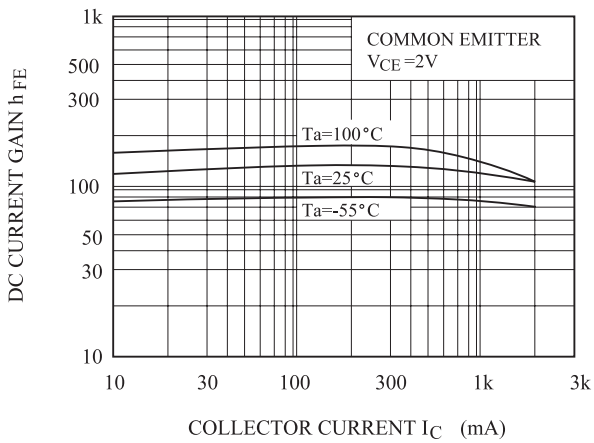
V_{CE} - I_C



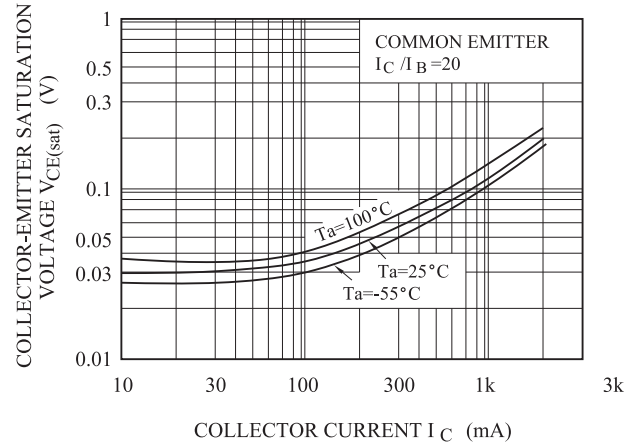
V_{CE} - I_C



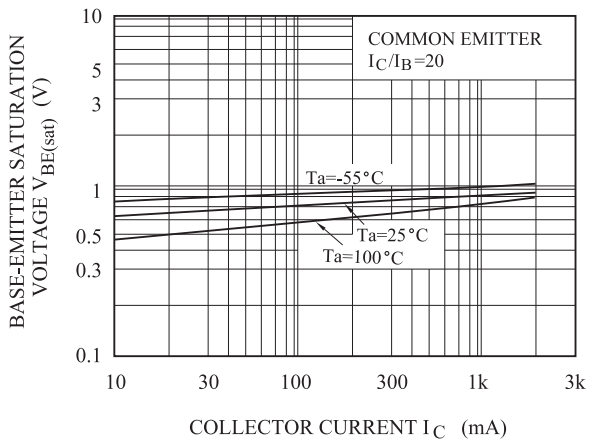
h_{FE} - I_C



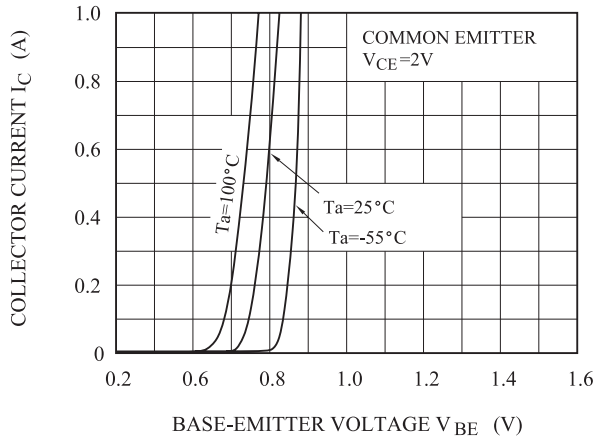
$V_{CE(sat)}$ - I_C



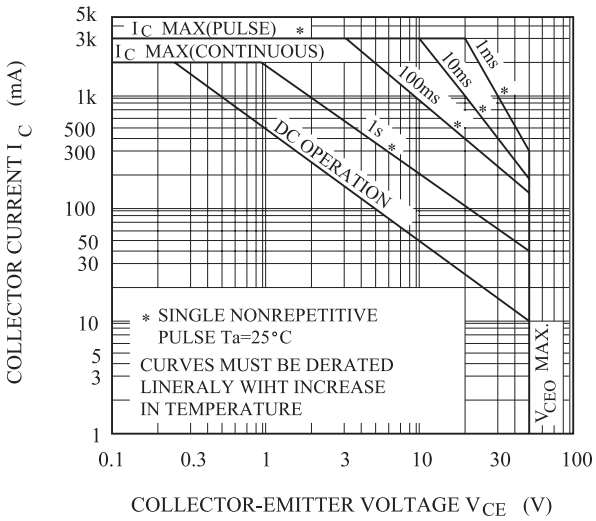
$V_{BE(sat)}$ - I_C



I_C - V_{BE}



SAFE OPERATING AREA



P_C - Ta