

POWER AMPLIFIER APPLICATIONS.
POWER SWITCHING APPLICATIONS.

FEATURES

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

MAXIMUM RATING (Ta=25°C)

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	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

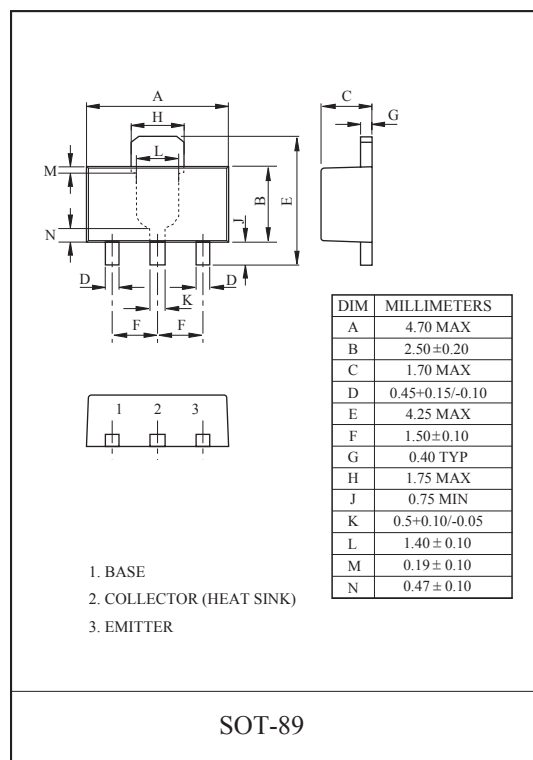
P_C^* : KTC4379 mounted on ceramic substrate (250mm²x0.8t)

ELECTRICAL CHARACTERISTICS (Ta=25°C)

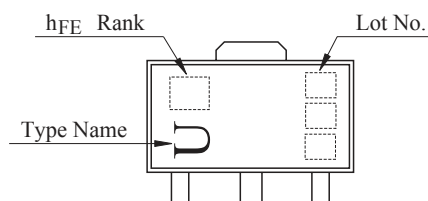
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V, I_E=0$	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	-	-	0.1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	50	-	-	V
DC Current Gain	$h_{FE}(1)$ (Note2)	$V_{CE}=2V, I_C=0.5A$ (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	-	

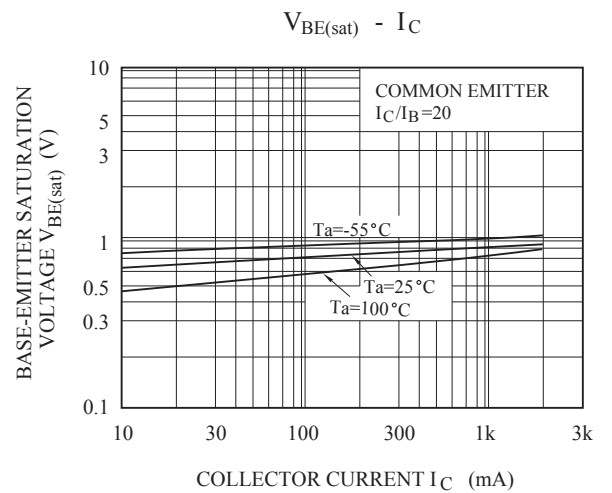
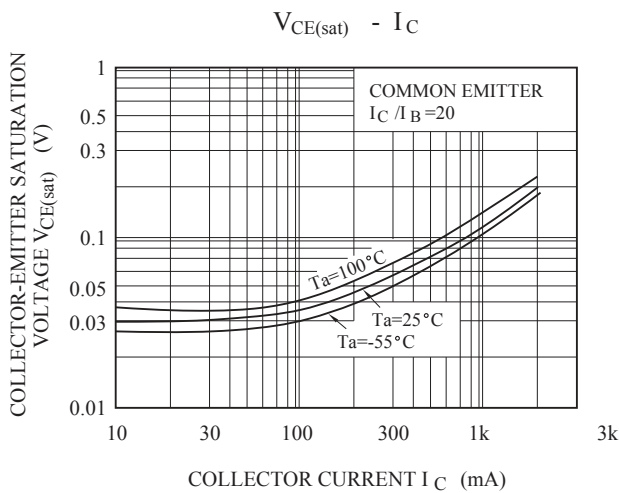
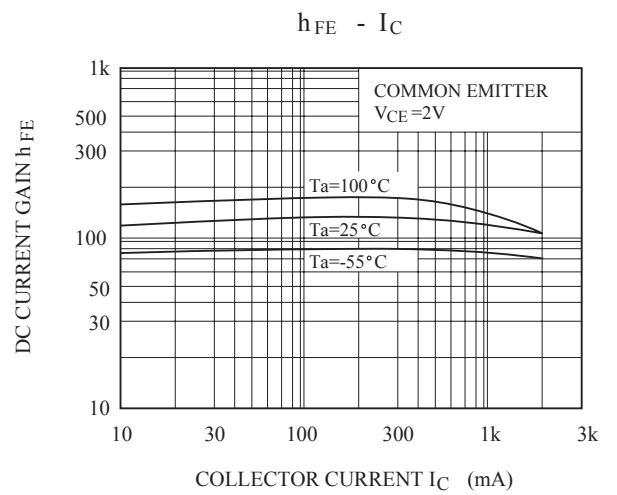
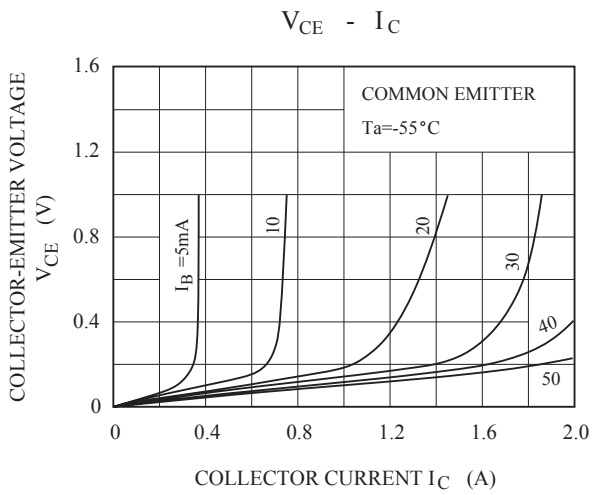
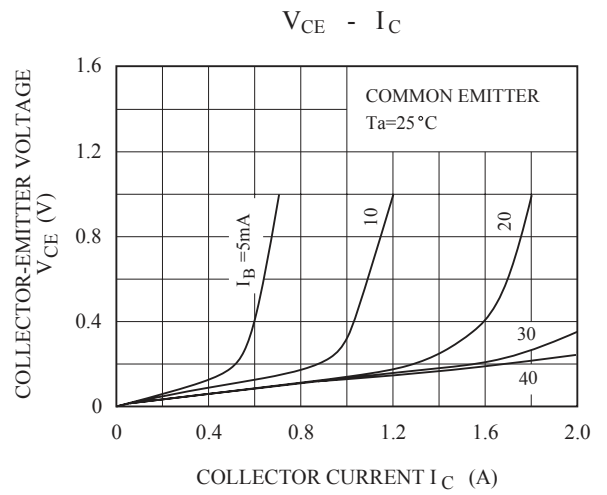
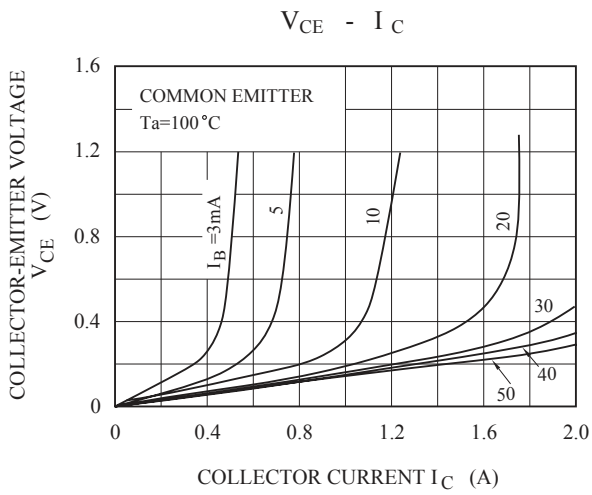
Note 1 : Pulse width $\leq 300 \mu S$, Duty Cycle $\leq 1\%$

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

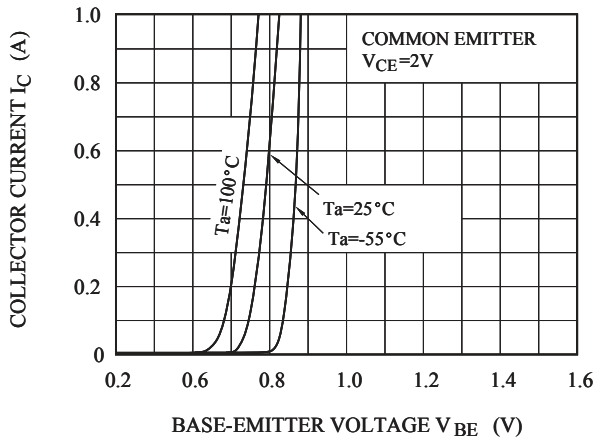


Marking

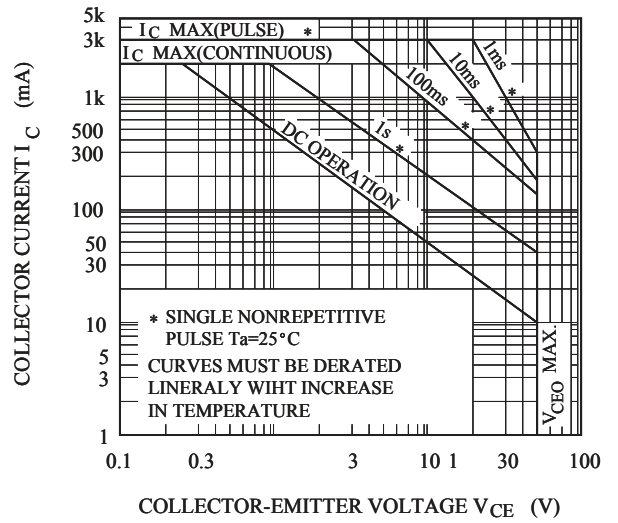




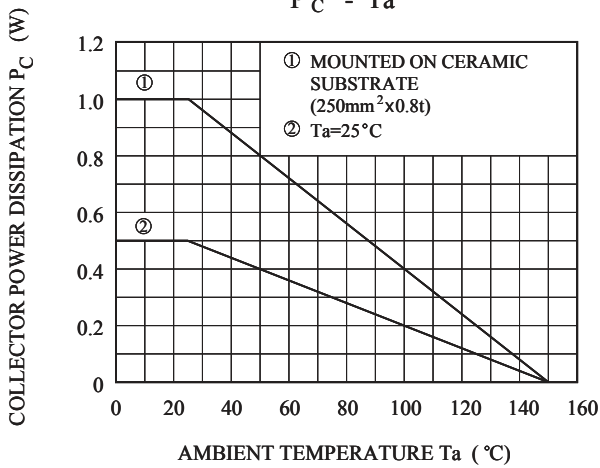
$I_C - V_{BE}$



SAFE OPERATING AREA



$P_C - T_a$



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