

**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

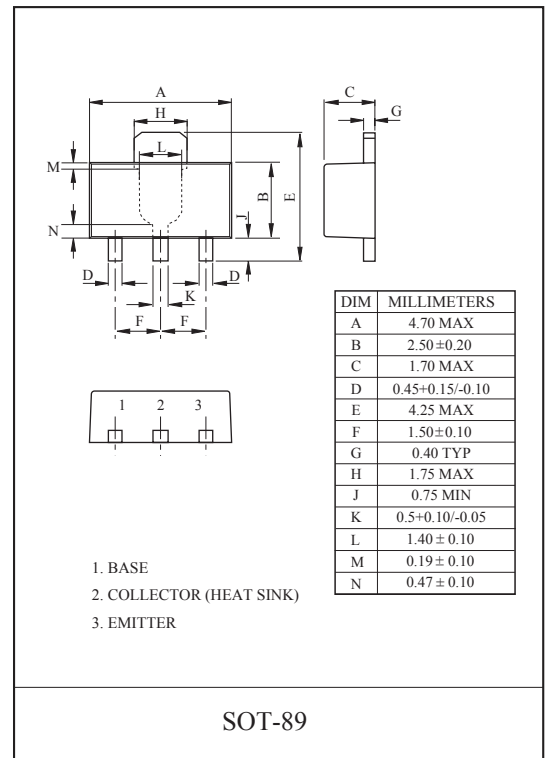
$P_C^*$  : KTC4379 mounted on ceramic substrate (250mm<sup>2</sup>x0.8t)

### ELECTRICAL CHARACTERISTICS (Ta=25°C)

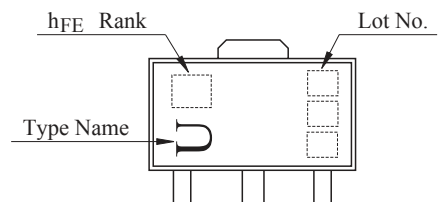
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=50V, I_E=0$	-	-	0.1	$\mu A$	
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	$\mu A$	
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	50	-	-	V	
DC Current Gain	$h_{FE}(1)$ (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	-	$\mu S$
	Storage Time	$t_{stg}$		-	1.0	-	
	Fall Time	$t_f$		-	0.1	-	

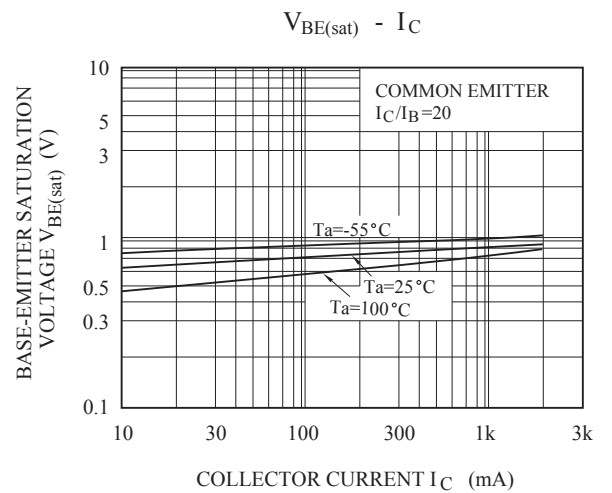
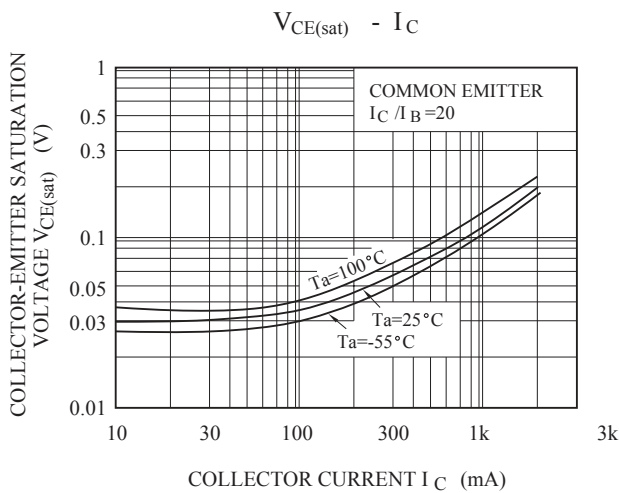
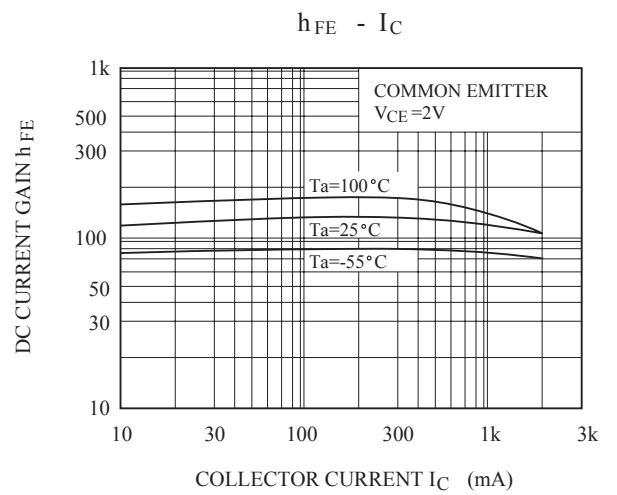
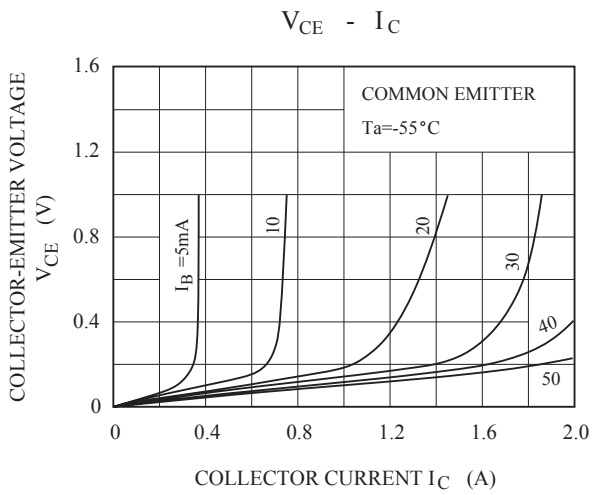
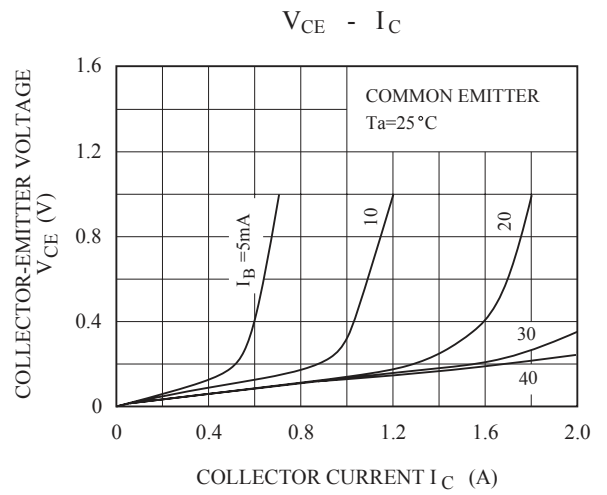
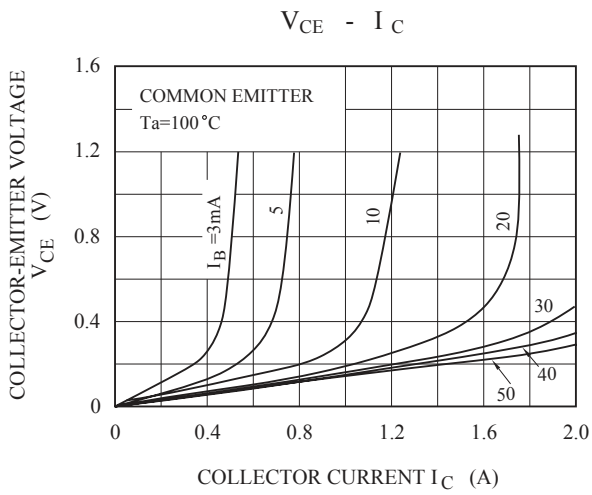
Note 1 : Pulse width  $\leq 300 \mu S$ , Duty Cycle  $\leq 1\%$

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



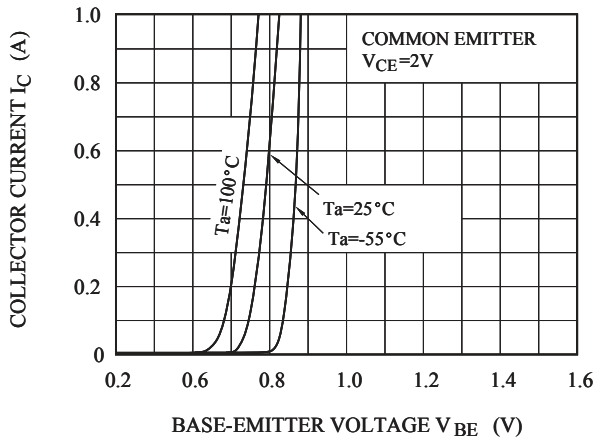
### Marking



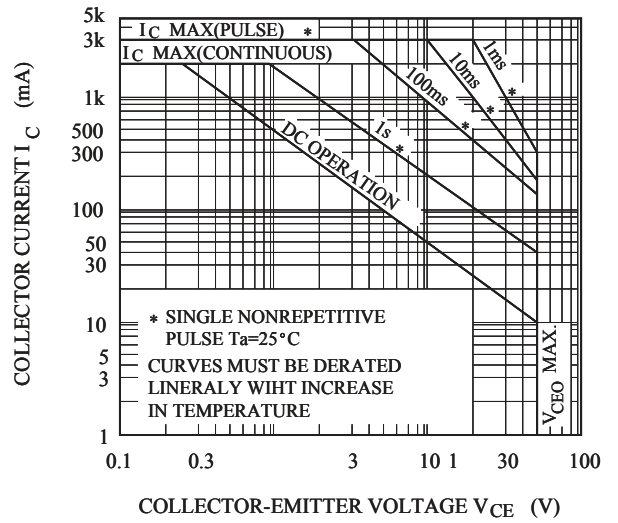


# KTC4379

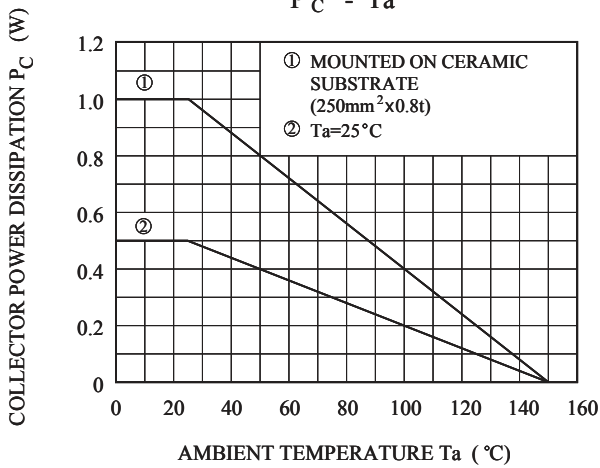
$I_C - V_{BE}$



SAFE OPERATING AREA



$P_C - T_a$



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