

POWER AMPLIFIER APPLICATIONS.  
POWER SWITCHING APPLICATIONS.

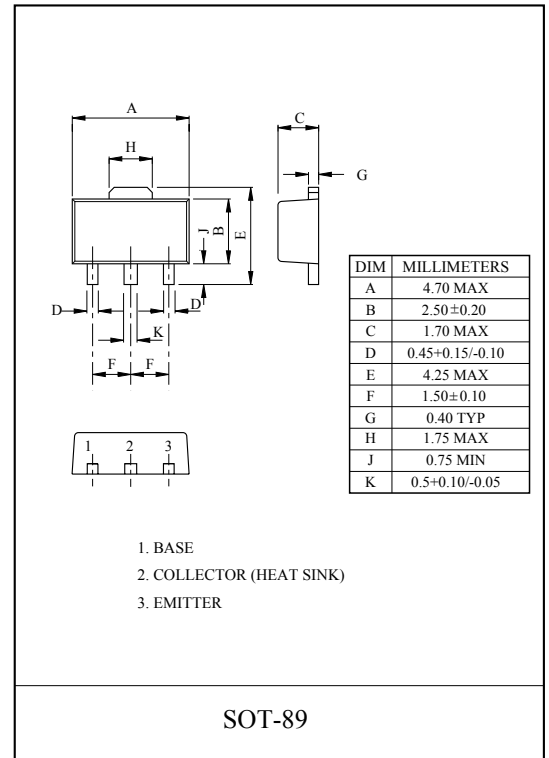
### FEATURES

- 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 KTC4379.

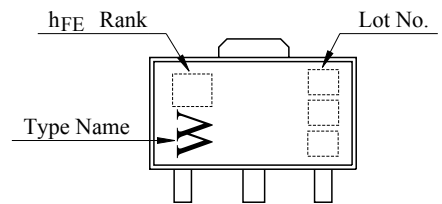
### MAXIMUM RATING ( $T_a = 25^\circ C$ )

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	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ C$

$P_C^*$  : KTA1666 mounted on ceramic substrate (250mm<sup>2</sup>x0.8t)



### Marking



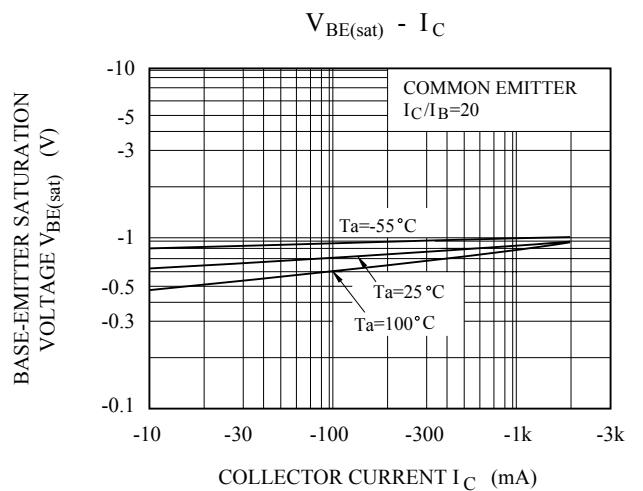
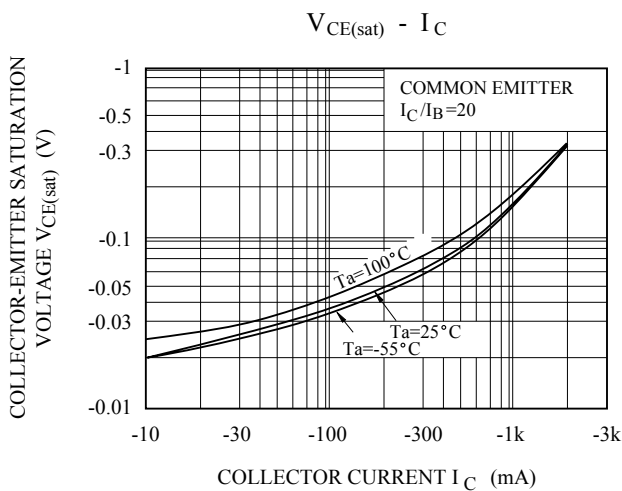
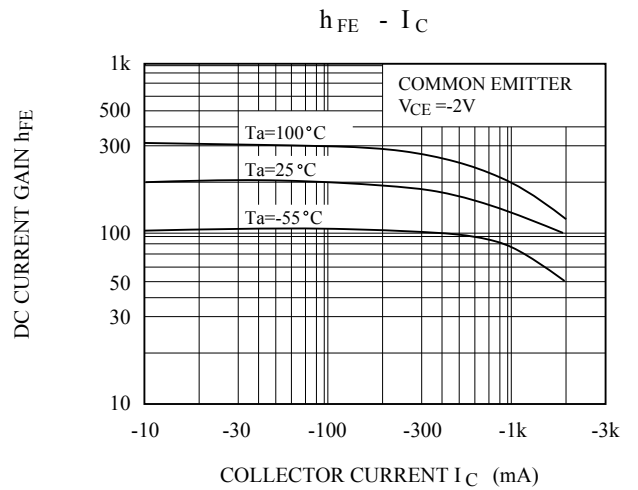
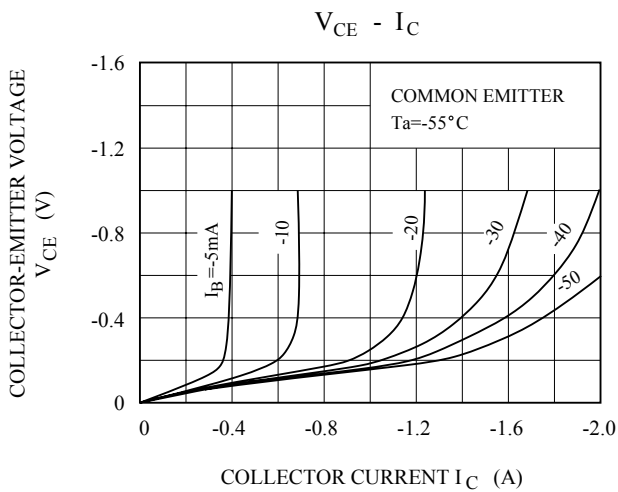
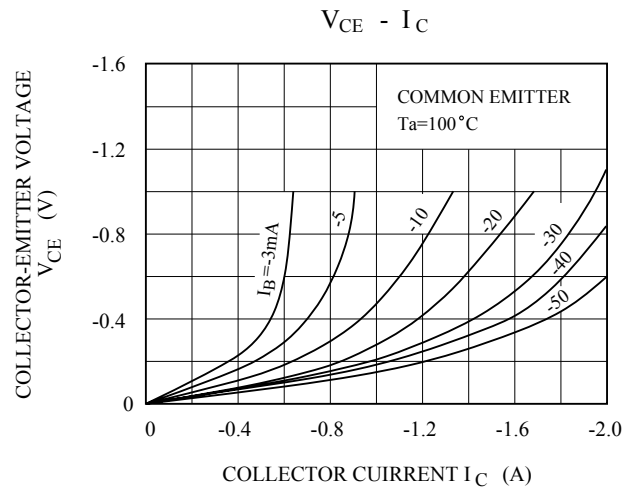
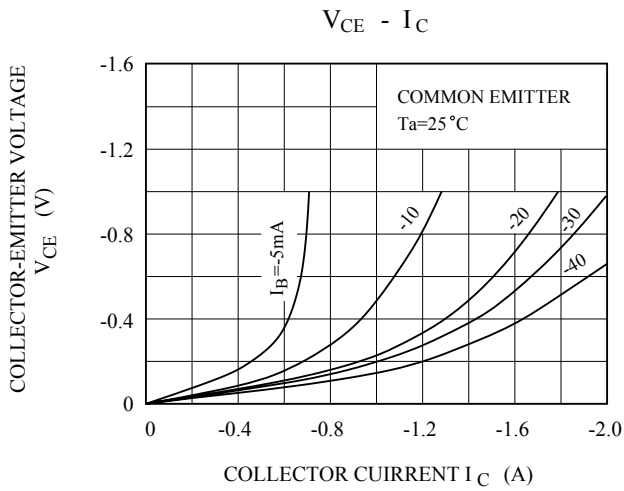
### ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

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	$h_{FE}(1)$ (Note 2)	$V_{CE} = -2V, I_C = -0.5A$ (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	-	$\mu S$
	Storage Time	$t_{stg}$		-	1.0	-	
	Fall Time	$t_f$		-	0.1	-	

Note 1 : Pulse width  $\leq 300\mu S$ , Duty Cycle  $\leq 2\%$

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

# KTA1666



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