

STROBO FLASH APPLICATION.  
HIGH CURRENT APPLICATION.

### FEATURES

- High DC Current Gain and Excellent  $h_{FE}$  Linearity
  - $h_{FE}(1)=140 \sim 600 (V_{CE}=1V, I_C=0.5A)$
  - $h_{FE}(2)=70(\text{Min.}), 140(\text{Typ.}) (V_{CE}=1V, I_C=2A).$
- Low Saturation Voltage
  - $V_{CE(sat)}=0.5V(\text{Max.}) (I_C=2A, I_B=50mA).$
- Small Flat Package.
- 1W (Mounted on Ceramic Substrate).

### MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		$V_{CBO}$	30	V
Collector-Emitter Voltage		$V_{CES}$	30	V
		$V_{CEO}$	10	
Emitter-Base Voltage		$V_{EBO}$	6	V
Collector Current	DC	$I_C$	2	A
	Pulse (Note 1)	$I_{CP}$	4	
Base Current	DC	$I_B$	0.4	A
	Pulse (Note 1)	$I_{BP}$	0.8	
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

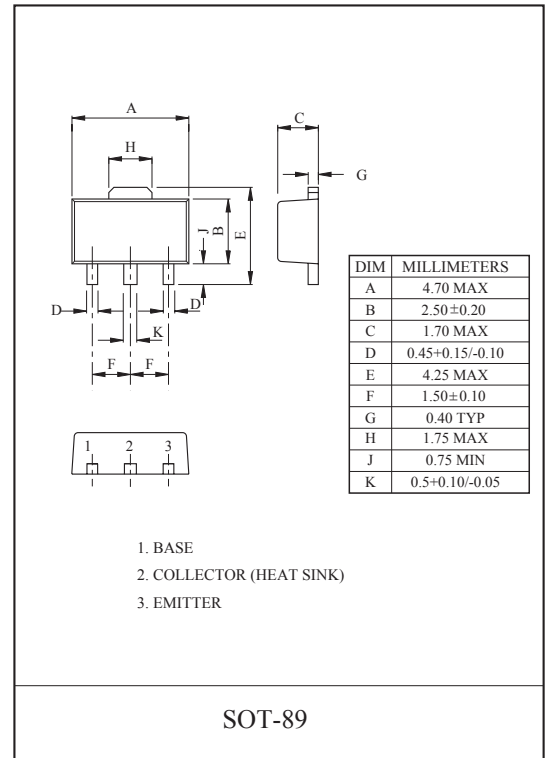
Note 1 : Pulse Width  $\leq 10\text{ms}$ , Duty Cycle  $\leq 30\%$

$P_C^*$  : KTC4377 mounted on ceramic substrate (250mm<sup>2</sup>x0.8t)

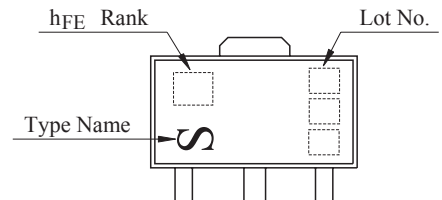
### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=30V, I_E=0$	-	-	100	nA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=6V, I_C=0$	-	-	100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	10	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=1mA, I_C=0$	6	-	-	V
DC Current Gain	$h_{FE}(1)$ (Note1)	$V_{CE}=1V, I_C=0.5A$	140	-	600	
	$h_{FE}(2)$	$V_{CE}=1V, I_C=2A$	70	140	-	
Collector-Emitter Saturation-Voltage	$V_{CE(sat)}$	$I_C=2A, I_B=50mA$	-	0.2	0.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=1V, I_C=2A$	-	0.86	1.5	V
Transition Frequency	$f_T$	$V_{CE}=1V, I_C=0.5A$	-	150	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1\text{MHz}$	-	27	-	pF

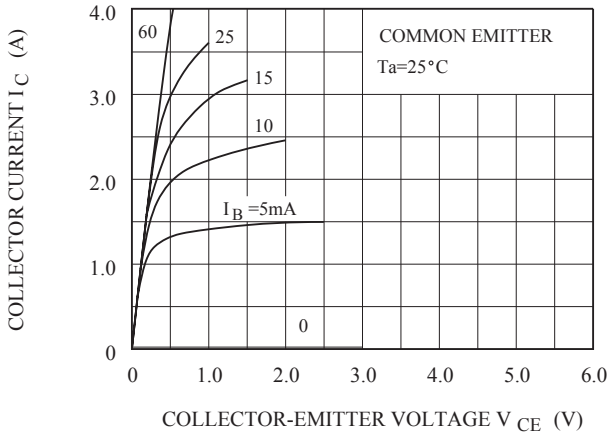
Note :  $h_{FE}(1)$  Classification A:140~240, B:200~300, C:300~450, D:420~600



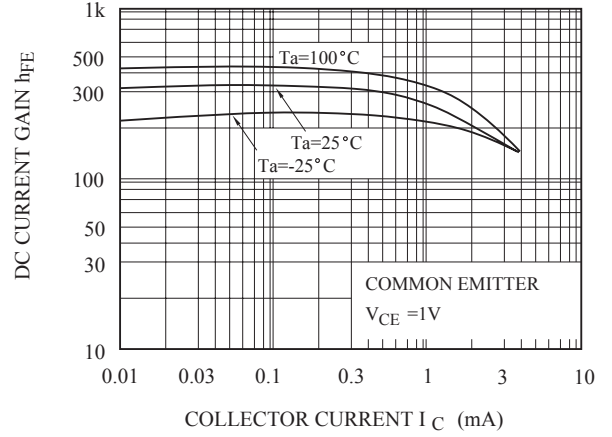
### Marking



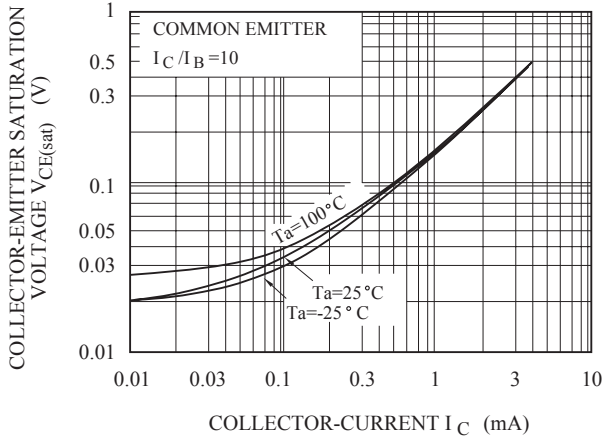
$I_C - V_{CE}$



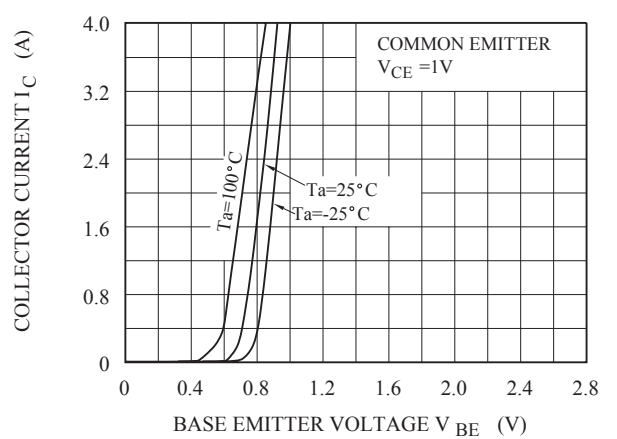
$h_{FE} - I_C$



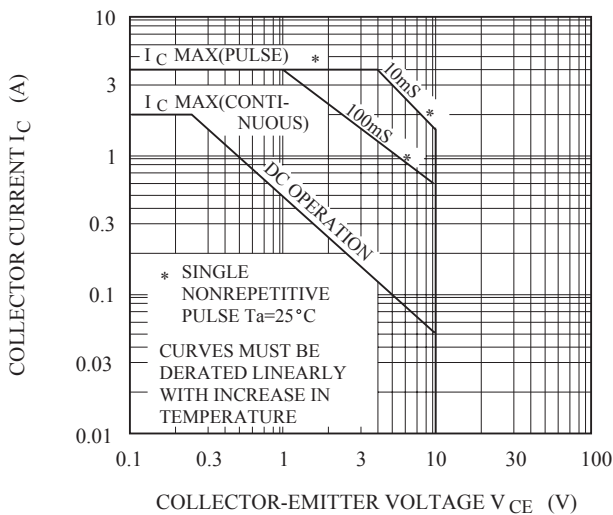
$V_{CE(sat)} - I_C$



$I_C - V_{BE}$



SAFE OPERATING AREA



$P_C - T_a$

