

STROBO FLASH APPLICATION.  
HIGH CURRENT APPLICATION.

### FEATURES

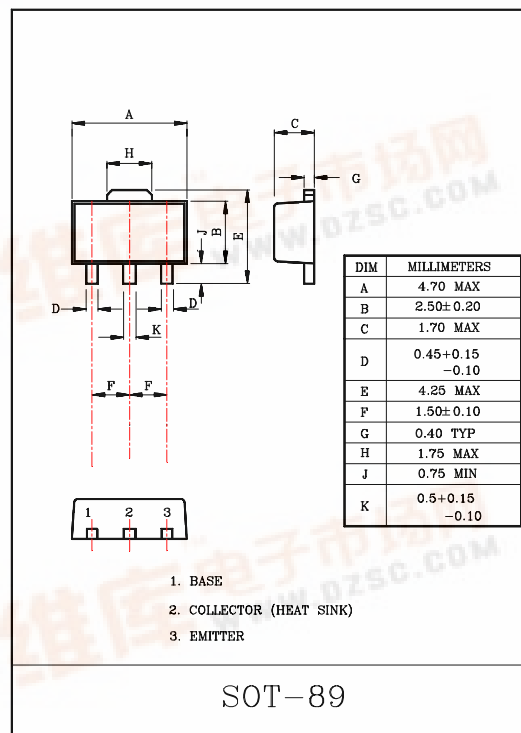
- High DC Current Gain and Excellent  $h_{FE}$  Linearity
  - $h_{FE(1)}=140\sim600(V_{CE}=1V, I_C=0.5A)$
  - $h_{FE(2)}=70(\text{Min.}), 140(\text{Typ.}) (V_{CE}=1V, I_C=2A).$
- Low Saturation Voltage
  - $V_{CE(sat)}=0.5V(\text{Max.}) (I_C=2A, I_B=50mA).$
- Small Flat Package.
- 1W (Mounted on Ceramic Substrate).

### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

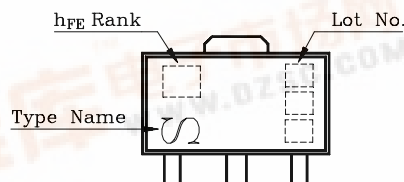
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	30	V
Collector-Emitter Voltage	$V_{CES}$	30	V
	$V_{CEO}$	10	
Emitter-Base Voltage	$V_{EBO}$	6	V
Collector Current	DC	$I_C$ 2	A
	Pulse (Note 1)	$I_{CP}$ 4	
Base Current	DC	$I_B$ 0.4	A
	Pulse (Note 1)	$I_{BP}$ 0.8	
Collector Power Dissipation	$P_C$	500	mW
	$P_{C^*}$	1	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ\text{C}$

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)



### Marking



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

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	$h_{FE(1)}$ (Note 1)	$V_{CE}=1V, I_C=0.5A$	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 1 :  $h_{FE(1)}$  Classification A:140~240, B:200~330, C:300~450, D:420~600



# KTC4377

