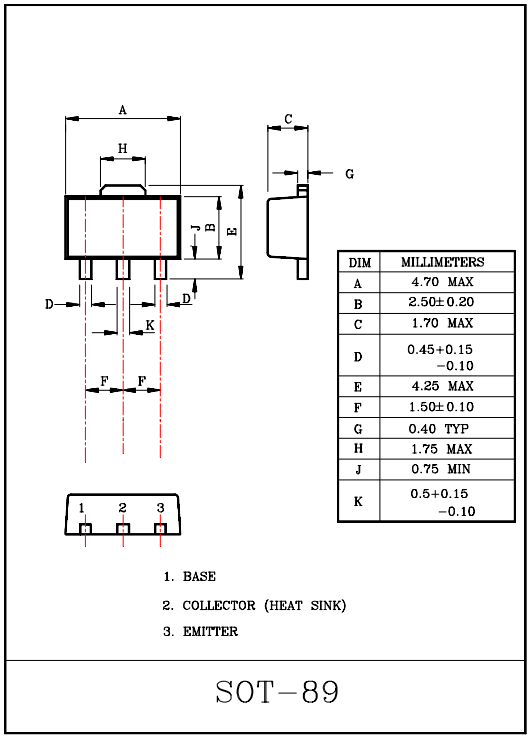
KTA1001

EPITAXIAL PLANAR PNP TRANSISTOR

CAMERA STROBO FLASH APPLICATION.
HIGH CURRENT APPLICATION.

FEATURES

- h_{FE}=100~320 (V_{CE}=-2V, I_C=-0.5A).
- h_{FE}=70(Min.) (V_{CE}=-2V, I_C=-3A).
- Low Collector Saturation Voltage.
  : $V_{CE(sat)}$=-0.5V(Max.) (I_C=-3A, I_B=-75mA).
- High Power Dissipation.
  : P_C=1W(Tc=25℃), P_C=0.5W(Ta=25℃).



DIM	MILLIMETERS
A	4.70 MAX
B	2.50±0.20
C	1.70 MAX
D	0.45+0.15 −0.10
E	4.25 MAX
F	1.50±0.10
G	0.40 TYP
H	1.75 MAX
J	0.75 MIN
K	0.5+0.15 −0.10

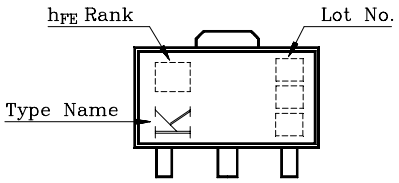
SOT-89

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-35	V
Collector-Emitter Voltage		V_{CEO}	-20	V
Emitter-Base Voltage		V_{EBO}	-8	V
Collector Current	DC	I_C	-3	A
	Pulse (Note1)	I_{CP}	-5	A
Base Current		I_B	-0.5	A
Collector Power Dissipation	Ta=25℃	P_C	0.5	W
	Tc=25℃ *		1	
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55~150	℃

Note1 : Pulse Test : Pulse width=10ms(Max.)
Duty cycle=30%(Max.)
*Pc : KTA1001 mounted on ceramic substrate(250mm^{2}x0.8t)

Marking

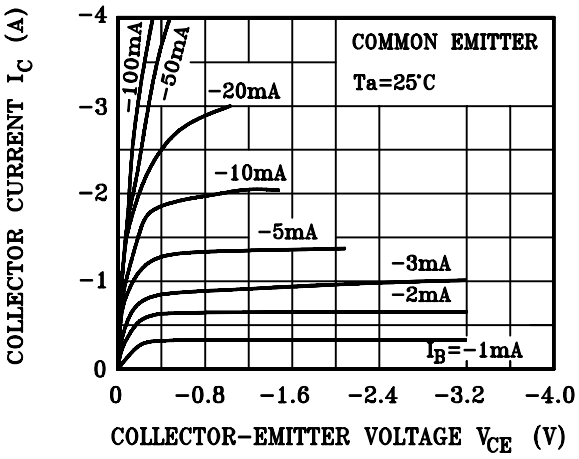


ELECTRICAL CHARACTERISTICS (Ta=25℃)

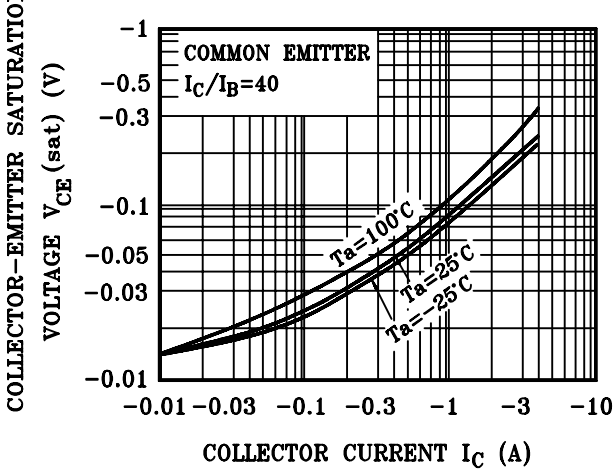
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=-35V, I_E=0	-	-	-100	nA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-8V, I_C=0	-	-	-100	nA
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=-10mA, I_B=0	-20	-	-	V
Emitter-Base Breakdown Voltage	V_{EBO}	I_E=-1mA, I_C=0	-8	-	-	V
DC Current Gain	h_{FE}(1) (Note2)	V_{CE}=-2V, I_C=-0.5A	100	-	320	
	h_{FE}(2)	V_{CE}=-2V, I_C=-3A	70	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-3A, I_B=-75mA	-	-	-0.5	V
Base-Emitter Voltage	V_{BE}	V_{CE}=-2V, I_C=-3A	-	-	-1.5	V
Transition Frequency	f_T	V_{CE}=-2V, I_C=-0.5A	-	170	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	62	-	pF

Note2 : h_{FE}(1) Classification O:100~200, Y:160~320

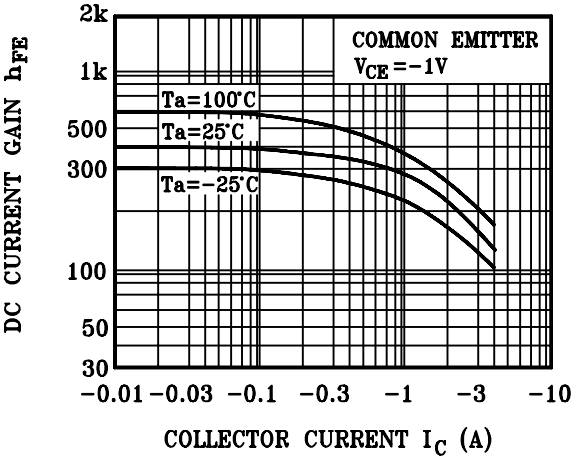
I_C – V_{CE}



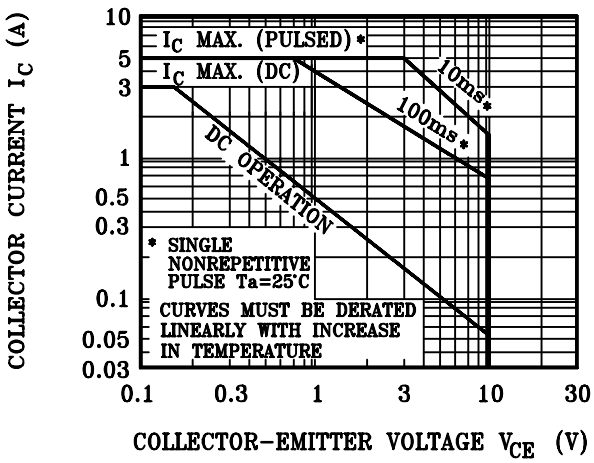
V_{CE}(sat) – I_C



h_{FE} – I_C



SAFE OPERATING AREA



P_C – T_a