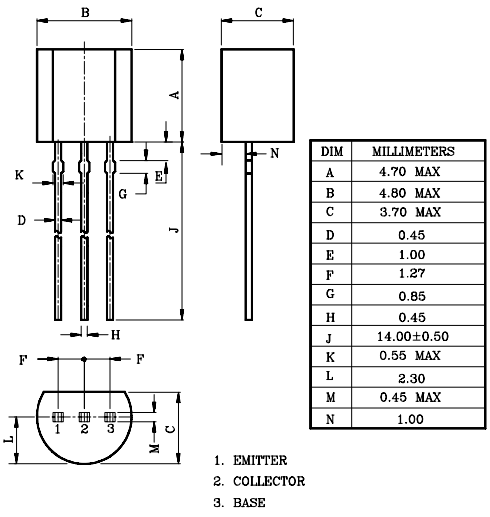
KTD1146

EPITAXIAL PLANAR NPN TRANSISTOR

HIGH CURRENT APPLICATION
CAMERA STROBO (For Electronic Flash Unit)

FEATURES
- Low $V_{CE(SAT)}$.
- High Performance at Low Supply Voltage.



DIM	MILLIMETERS
A	4.70 MAX
B	4.80 MAX
C	3.70 MAX
D	0.45
E	1.00
F	1.27
G	0.85
H	0.45
J	14.00±0.50
K	0.55 MAX
L	2.30
M	0.45 MAX
N	1.00

TO-92

ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	40	V
Collector-Emitter Voltage		V_{CEO}	20	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current	DC	I_C	5	A
	Pulse (Note1)	I_{CP}	8	
Collector Power Dissipation		P_C	625	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55~150	℃

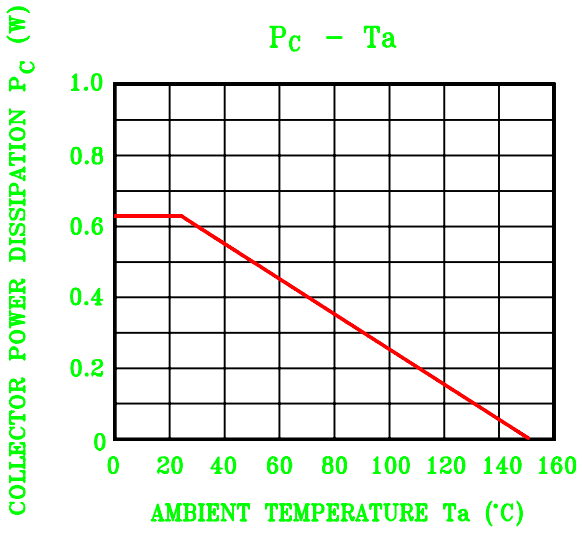
Note 1: Pulse Width ≦100mS, Duty Cycle≦30%

ELECTRICAL CHARACTERISTICS (Ta=25℃)

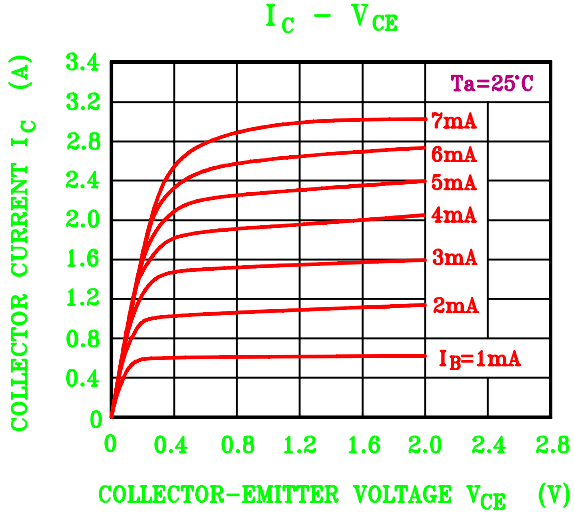
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=100μA	40	-	-	V
Collector Emitter Breakdown Voltage (1)	$V_{(BR)CEO}$	I_C=1mA	20	-	-	V
Emitter Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=10μA	7	-	-	V
Collector Cutoff Current	I_{CBO}	V_{CB}=20V, I_E=0	-	-	100	nA
Emitter Cutoff Current	I_{EBO}	V_{EB}=7V, I_C=0	-	-	100	nA
DC Current Gain	h_{FE}(1) (Note 1)	V_{CE}=2V, I_C=0.5A	120	-	700	
	h_{FE}(2)	V_{CE}=2V, I_C=2A	100	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=3A, I_B=60mA(Pulse)	-	-	0.4	V
Transition Frequency	f_T	V_{CE}=6V, I_C=50mA	20	100	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=20V, f=1MHz	-	-	50	pF

Note 1 : h_{FE}(1) Classification O:120~240, Y:200~400, GR:350~700

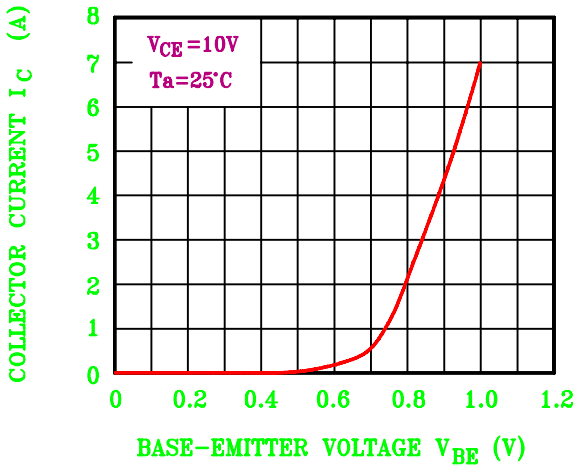
P_C – Ta



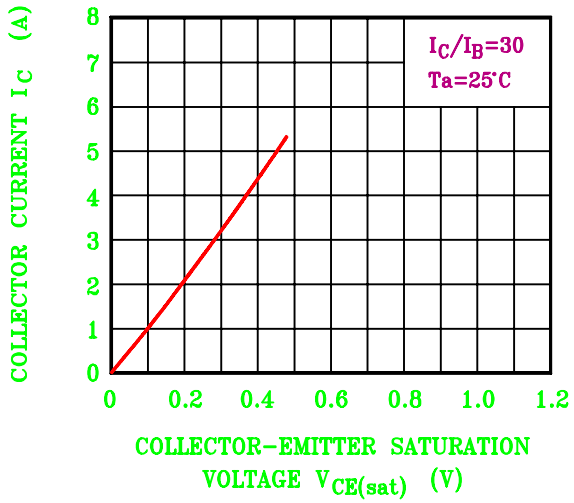
I_C – V_{CE}



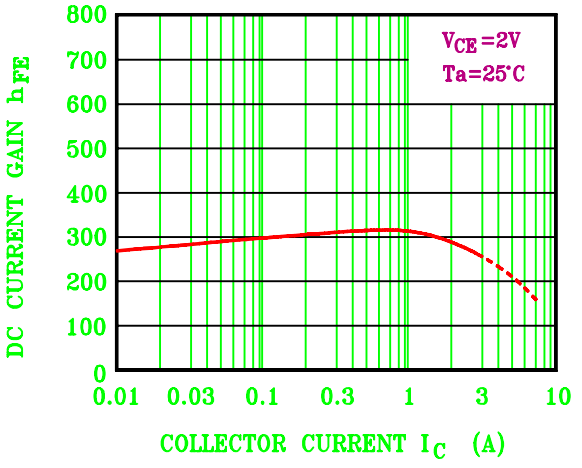
I_C – V_{BE}



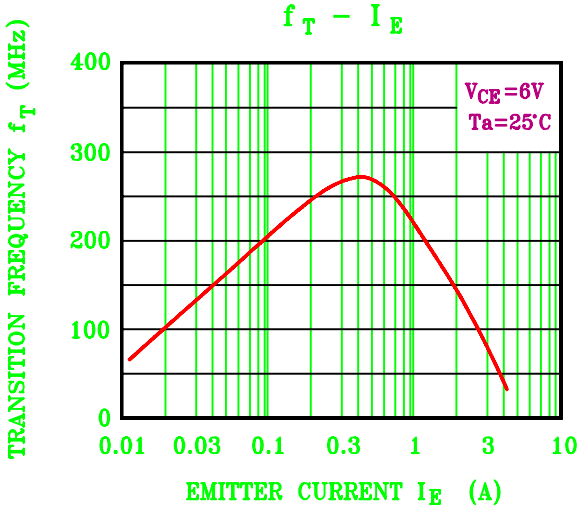
I_C – $V_{CE(sat)}$



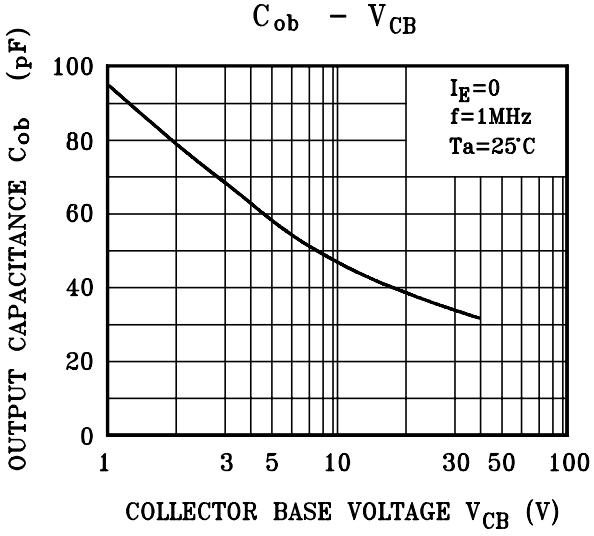
h_{FE} – I_C



f_T – I_E



C_{ob} - V_{CB}



SAFE OPERATION AREA