

KEC

SEMICONDUCTOR
TECHNICAL DATA

KTC3072D/L

EPITAXIAL PLANAR NPN TRANSISTOR

HIGH CURRENT APPLICATION

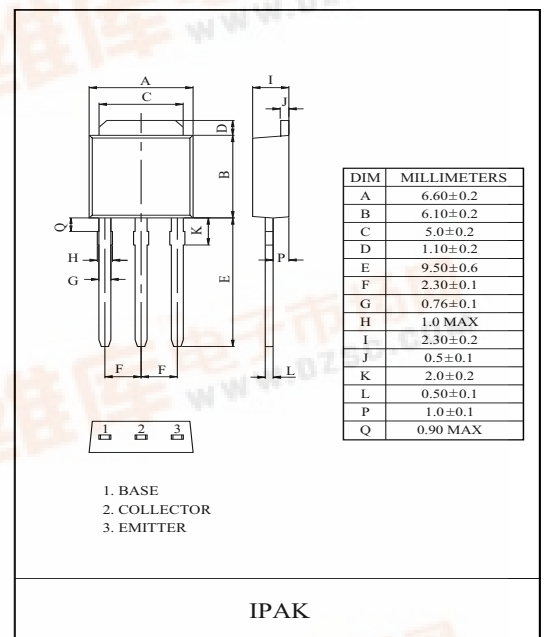
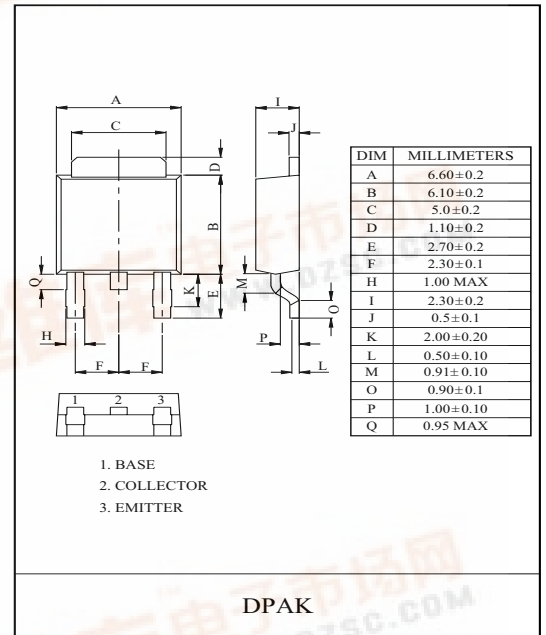
CAMERA STROBO (For Electronic Flash Unit)

FEATURES

- Low Saturation Voltage : $V_{CE(sat)} = 0.4V(\text{Max})(I_C=3A)$
- High Performance at Low Supply Voltage.

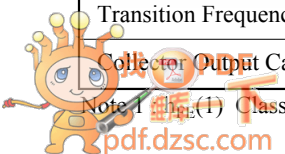
MAXIMUM RATING ($T_a=25^\circ\text{C}$)

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	1.0	W
Junction Temperature		T_j	150	$^\circ\text{C}$
Storage Temperature Range		T_{stg}	-55 ~ 150	$^\circ\text{C}$

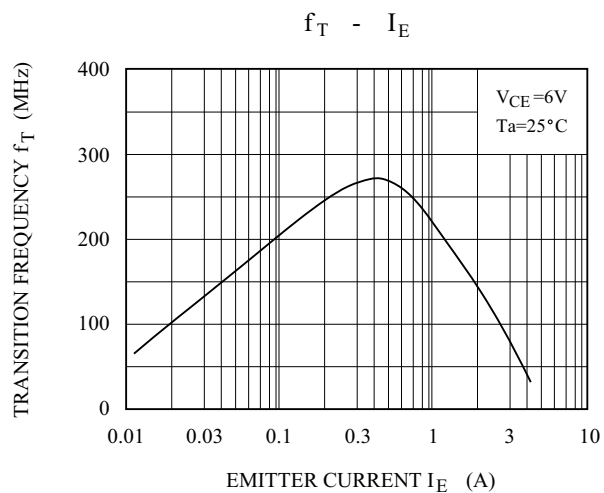
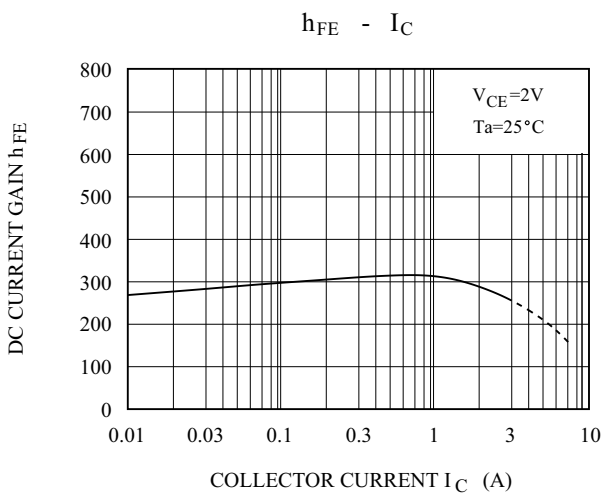
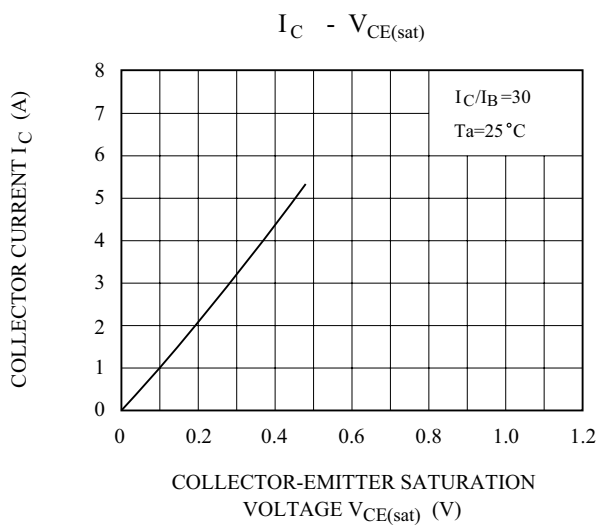
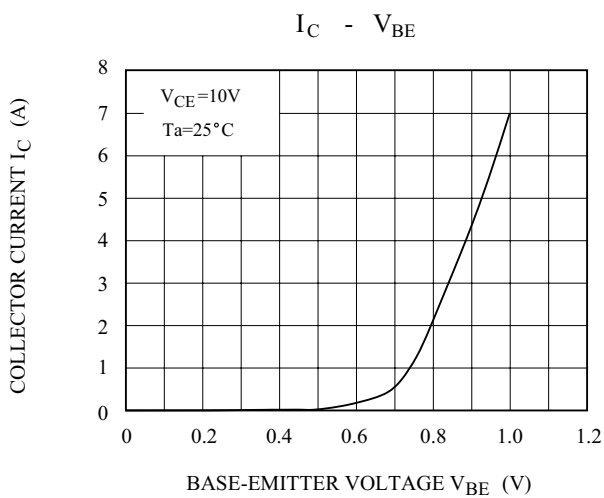
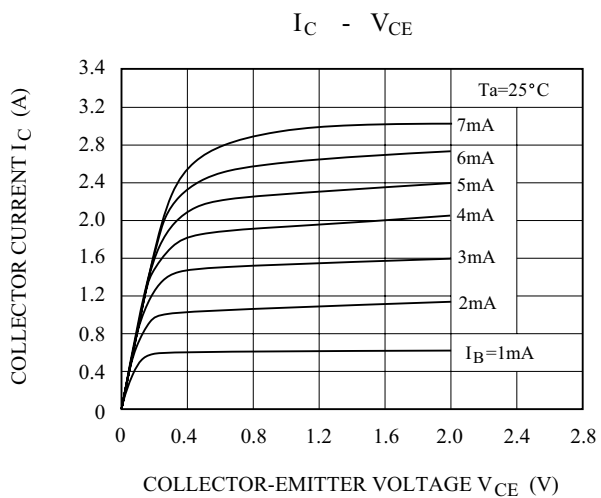
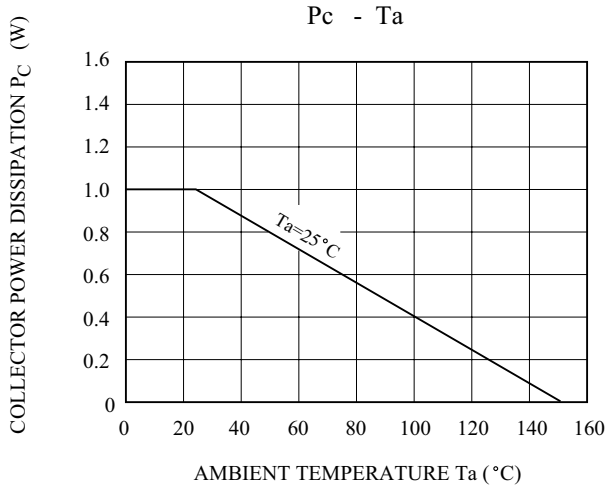
Note 1: Pulse Width $\leq 100\text{ms}$, Duty Cycle $\leq 30\%$ ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$, $I_E=0$	40	-	-	V
Collector Emitter Breakdown Voltage (1)	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $I_B=0$	20	-	-	V
Emitter Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}$, $I_C=0$	7	-	-	V
Collector Cutoff Current	I_{CBO}	$V_{CB}=20\text{V}$, $I_E=0$	-	-	100	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=7\text{V}$, $I_C=0$	-	-	100	nA
DC Current Gain	$h_{FE(1)}(\text{Note1})$	$V_{CE}=2\text{V}$, $I_C=0.5\text{A}$	120	-	700	
	$h_{FE(2)}$	$V_{CE}=2\text{V}$, $I_C=2\text{A}$	100	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3\text{A}$, $I_B=60\text{mA}(\text{Pulse})$	-	-	0.4	V
Transition Frequency	f_T	$V_{CE}=6\text{V}$, $I_C=50\text{mA}$	20	100	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=20\text{V}$, $f=1\text{MHz}$, $I_E=0$	-	-	50	pF

Note 1: Fig.(1) Classification O:120~240, Y:200~400, GR:350~700

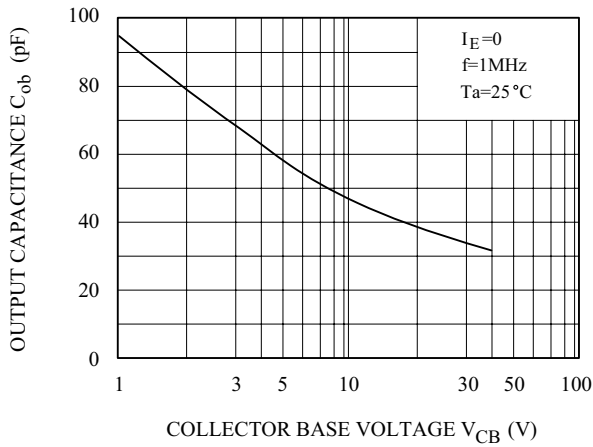


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$C_{ob} - V_{CB}$



SAFE OPERATION AREA

