

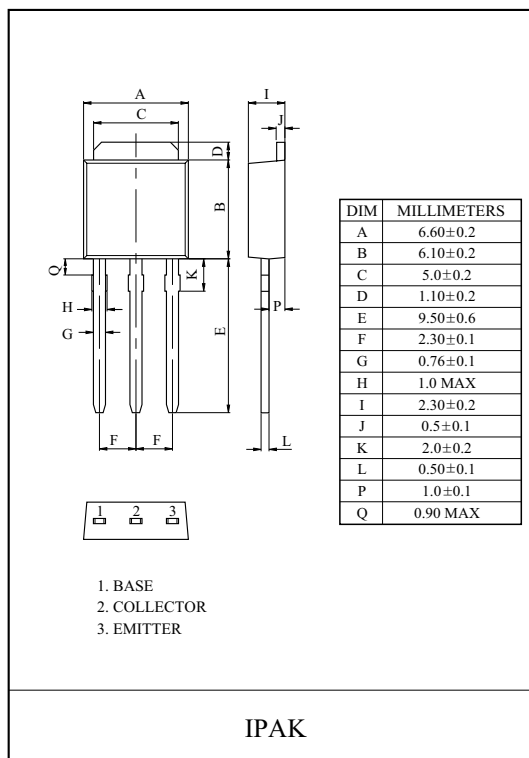
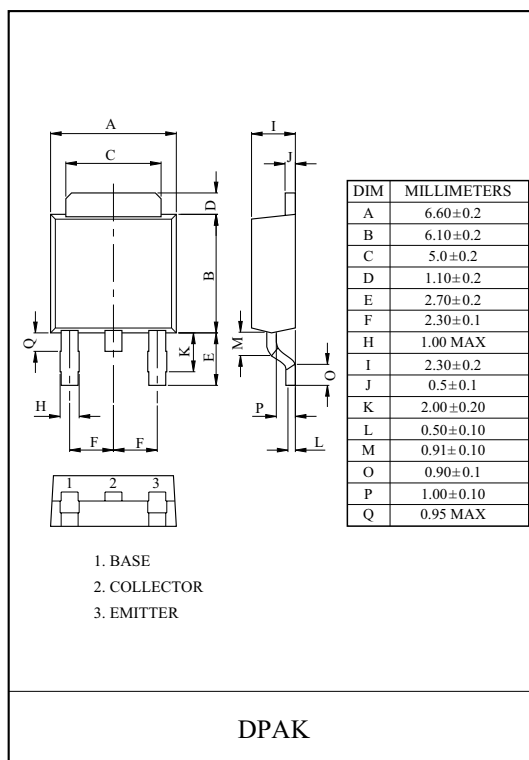
DC-DC CONVERTERS RELAY DRIVERS, LAMP DRIVERS,
MOTOR DRIVERS, STROBES APPLICATION.

FEATURES

- Adoption of FBET, MBIT Processes.
- High Current Capacitance.
- Low Collector-to-Emitter Saturation Voltage.
- High-Speed Switching.
- High Allowable Power Dissipation.

MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	80	V
Collector-Emitter Voltage		V_{CES}	80	V
		V_{CEO}	50	
Emitter-Base Voltage		V_{EBO}	6	V
Collector Current	DC	I_C	8	A
	Pulse	I_{CP}	11	
Base Current		I_B	2	A
Collector Power Dissipation	Ta=25 °C	P_C	1.0	W
	Tc=25 °C		15	
Junction Temperature		T_J	150	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C

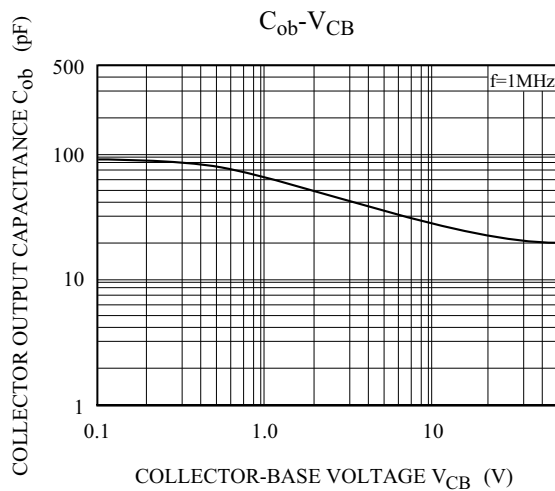
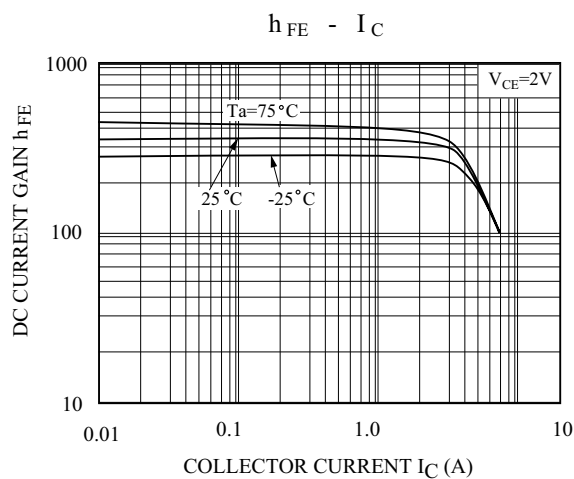
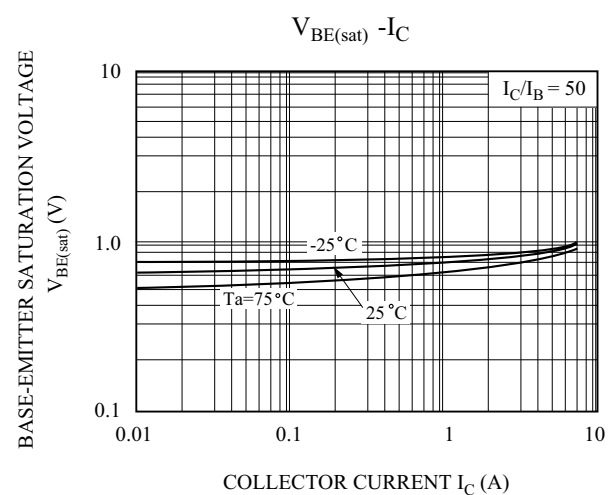
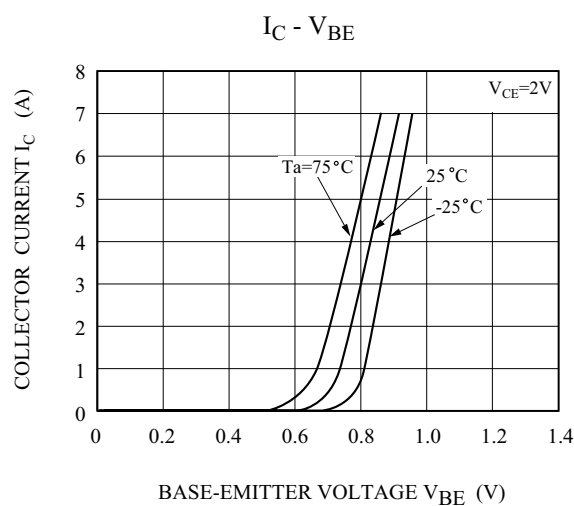
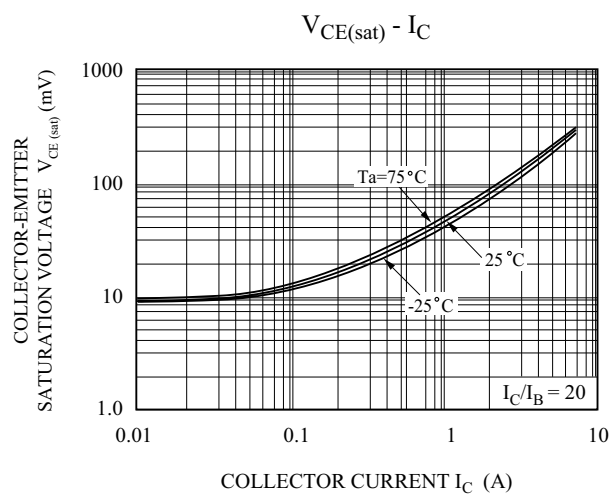
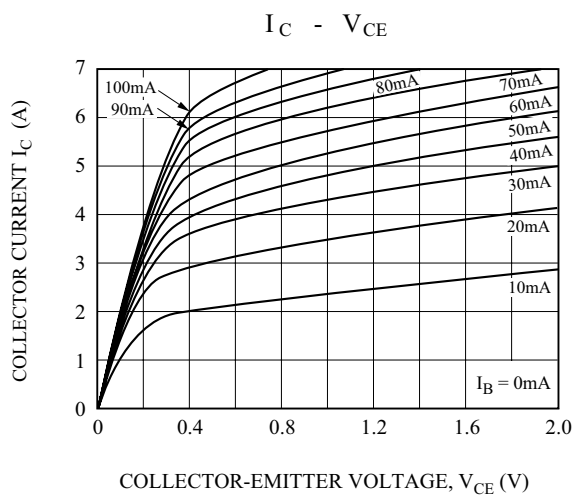


KTC5707D/L

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

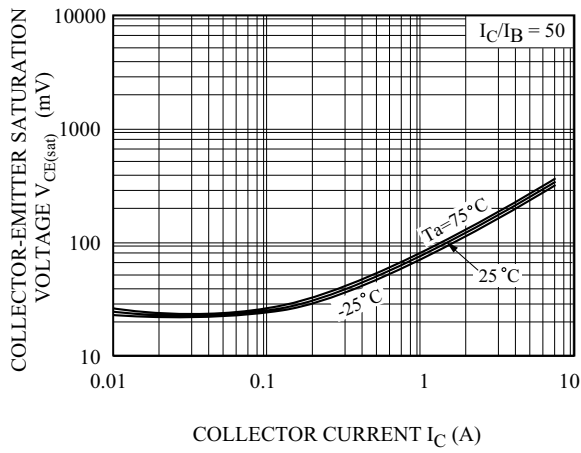
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I _{CBO}	V _{CB} =40V, I _E =0	-	-	0.1	μA
Emitter Cut-off Current		I _{EBO}	V _{EB} =4V, I _C =0	-	-	0.1	μA
Collector-Base Breakdown Voltage		V _{(BR)CBO}	I _C =10 μA, I _E =0	80	-	-	V
Collector-Emitter Breakdown Voltage		V _{(BR)CES}	I _C =100 μA, V _{BE} =0	80	-	-	V
		V _{(BR)CEO}	I _C =1mA, I _B =0	50	-	-	V
Emitter-Base Breakdown Voltage		V _{(BR)EBO}	I _E =10 μA, I _C =0	6	-	-	V
Collector-Emitter Saturation Voltage		V _{CE(sat)1}	I _C =2A, I _B =40mA	-	110	170	mV
		V _{CE(sat)2}	I _C =3.5A, I _B =175mA	-	160	240	mV
Base-Emitter Saturation Voltage		V _{BE(sat)}	I _C =2A, I _B =40mA	-	0.83	1.2	V
DC Current Gain		h _{FE}	V _{CE} =2V, I _C =500mA	200	-	560	-
Transition Frequency		f _T	V _{CE} =10V, I _C =500mA	-	330	-	MHz
Collector Output Capacitance		C _{ob}	V _{CB} =10V, f=1MHz	-	28	-	pF
Switching Time	Turn-On Time	t _{on}	PW=20μs DC ≤ 1% INPUT 50Ω VR RB I_{B1} I_{B2} 100μF V_{BE}=-5V 470μF V_{CC}=25V 20I_{B1}=20I_{B2}=I_C=2.5A OUTPUT RL	-	30	-	nS
	Storage Time	t _{stg}		-	420	-	
	Fall Time	t _f		-	25	-	

KTC5707D/L

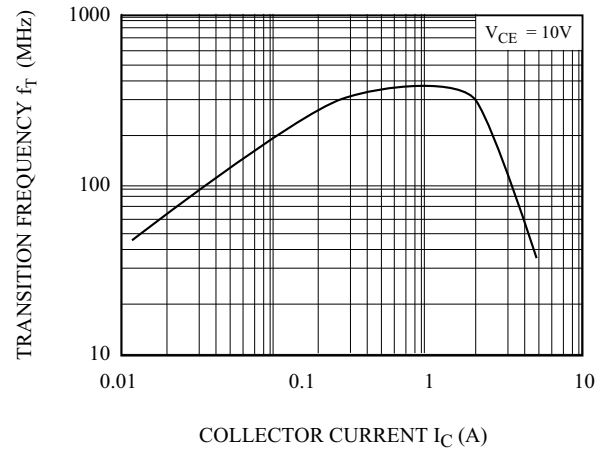


KTC5707D/L

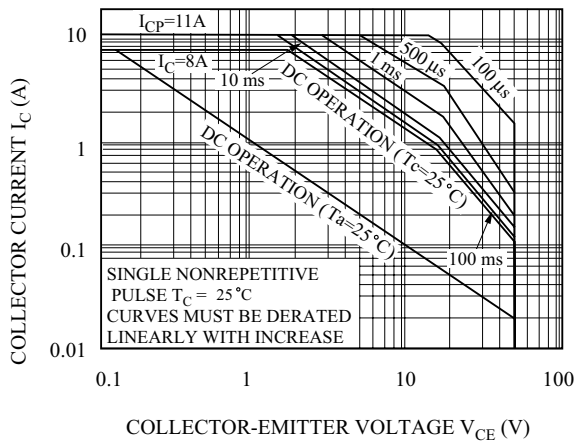
$V_{CE(sat)} - I_C$



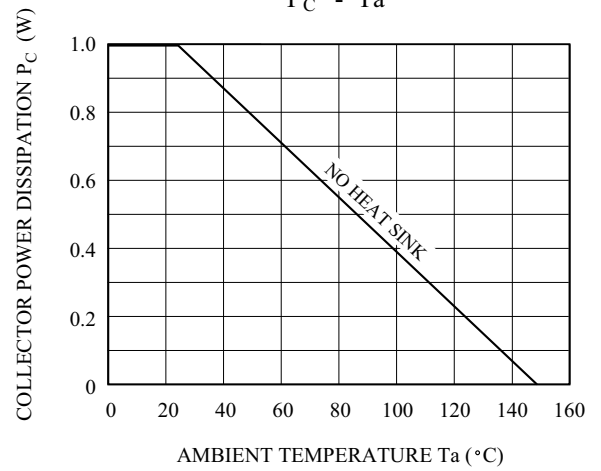
$f_T - I_C$



SAFE OPERATING AREA



$P_C - T_a$



$P_C - T_C$

