

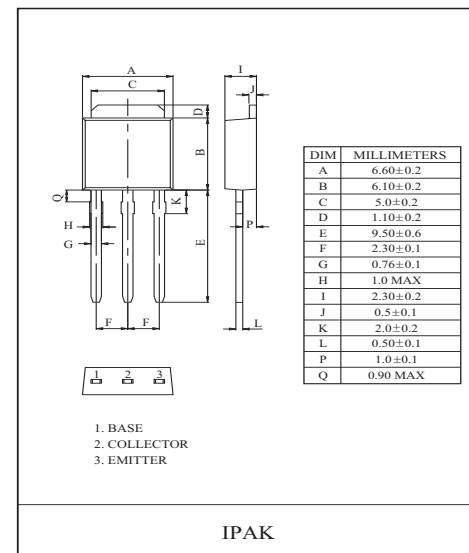
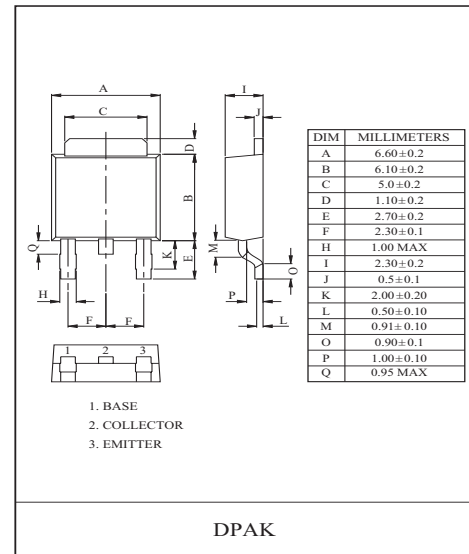
### GENERAL PURPOSE APPLICATION.

### FEATURES

- Low Collector-Emitter Saturation Voltage  
:  $V_{CE(sat)} = -2.0V(\text{Max.})$ .

### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	130	V
Collector-Emitter Voltage	$V_{CEO}$	100	V
	$V_{CES}$	130	V
Emitter-Base Voltage	$V_{EBO}$	8	V
Collector Current	$I_C$	5	A
	$I_{CP}$	10	A
Base Current	$I_B$	0.5	A
Collector Power Dissipation (Tc=25 °C)	$P_C$	20	W
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	



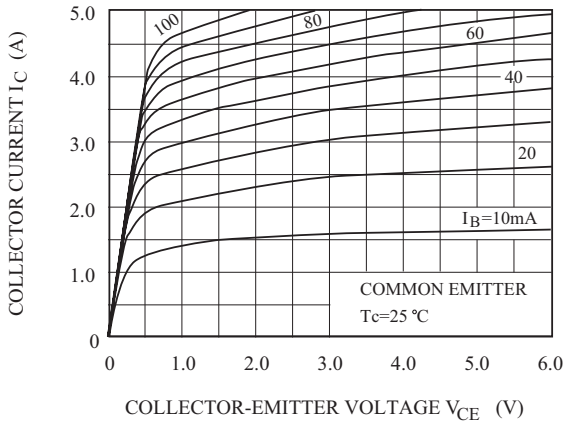
### ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=130V, I_E=0$	-	-	10	$\mu A$
	$I_{CEO}$	$V_{CE}=60V, I_B=0$	-	-	1.5	
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=8V, I_C=0$	-	-	1.0	mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	100	-	-	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5V, I_C=1mA$	35	-	-	
	$h_{FE(2)}(\text{Note})$	$V_{CE}=5V, I_C=1A$	70	-	240	
	$h_{FE(3)}$	$V_{CE}=5V, I_C=4A$	20	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=4A, I_B=0.4A$	-	-	2.0	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=5V, I_C=1A$	-	-	1.5	V
Transition Frequency	$f_T$	$V_{CE}=5V, I_C=1A$	-	30	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	40	-	pF

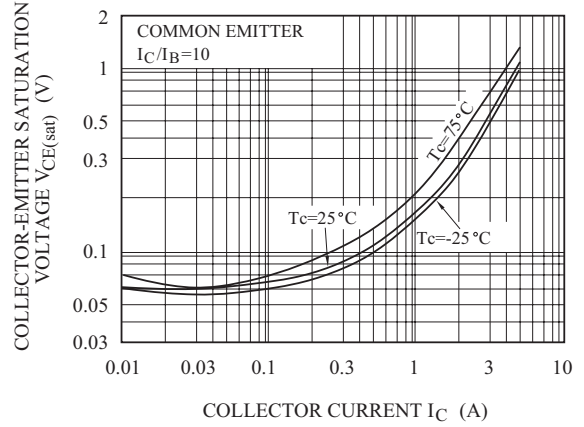
Note :  $h_{FE(1)}$  Classification 0:70~140, Y:120~240.

# KTC2022D/L

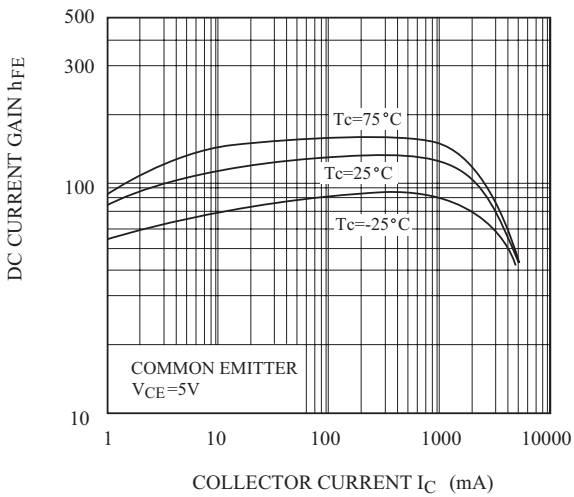
$I_C - V_{CE}$



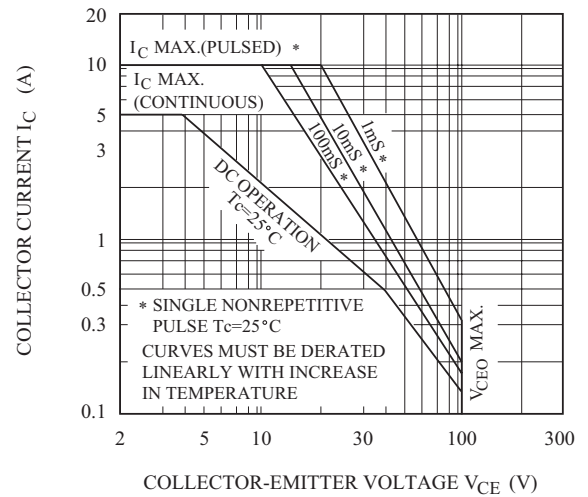
$V_{CE(sat)} - I_C$



$h_{FE} - I_C$



SAFE OPERATING AREA



$P_c - T_a$

