

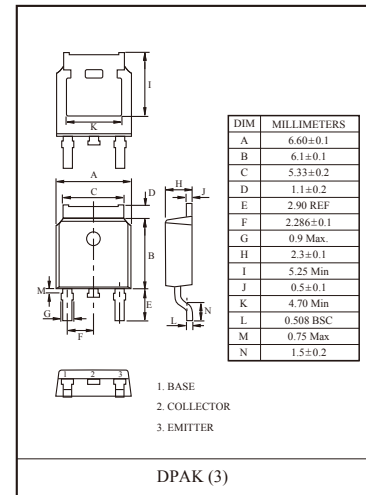
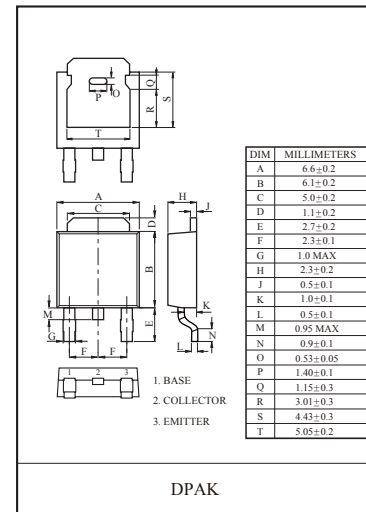
GENERAL PURPOSE APPLICATION.

FEATURES

- Low Collector Saturation Voltage
: $V_{CE(sat)}=1.0V(\text{Max})$ at $I_C=2A$, $I_B=0.2A$
- Suffix U : Qualified to AEC-Q101.
ex) KTC2030D-RTF/HU

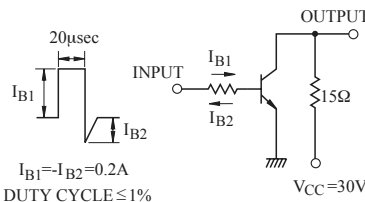
MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	60	V
	V_{CER}	100	
Emitter-Base Voltage	V_{EBO}	10	V
Collector Current	I_C	3	A
Base Current	I_B	0.5	A
Collector Power Dissipation	Ta=25°C	1	W
	Tc=25°C	20	
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C



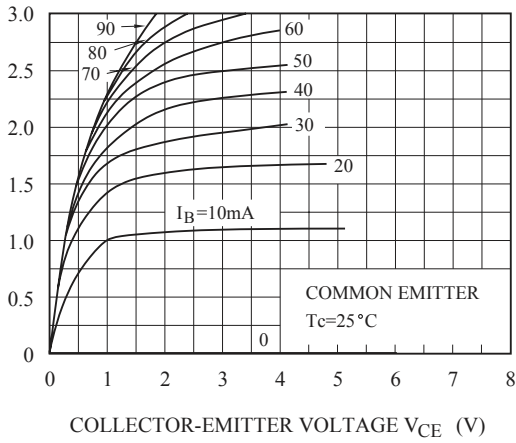
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=80V$, $I_E=0$	-	-	1	μA
	I_{CER}	$V_{CE}=100V$, $R_{BE}=10k\Omega$	-	-	1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=10V$, $I_C=0$	-	-	1	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50mA$, $I_B=0$	60	-	-	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=5V$, $I_C=1mA$	100	-	-	
	$h_{FE(2)}$	$V_{CE}=5V$, $I_C=0.5A$	150	-	250	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A$, $I_B=0.2A$	-	0.25	1.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=5V$, $I_C=0.5A$	-	0.7	1.0	V
Transition Frequency	f_T	$V_{CE}=5V$, $I_C=0.5A$	-	30	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V$, $I_E=0$, $f=1MHz$	-	35	-	pF
Switching Time	Turn-on Time	t_{on}	-	0.085	-	μS
	Storage Time	t_{stg}	-	1.02	-	
	Fall Time	t_f	-	0.041	-	

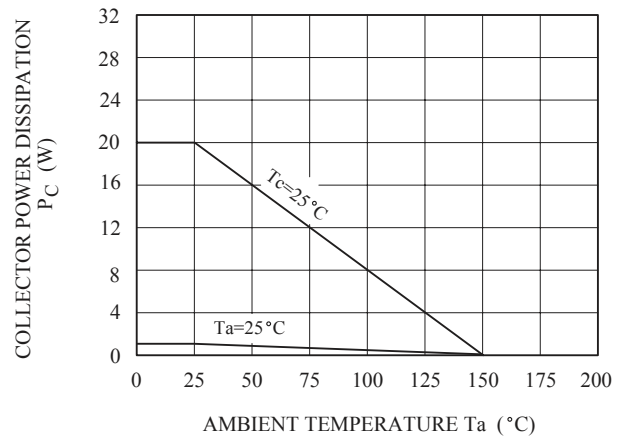


KTC2030D

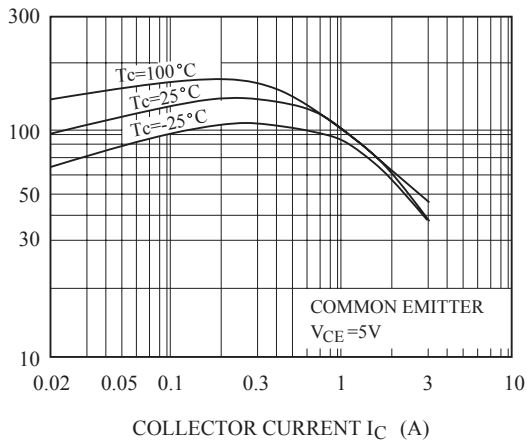
$I_C - V_{CE}$



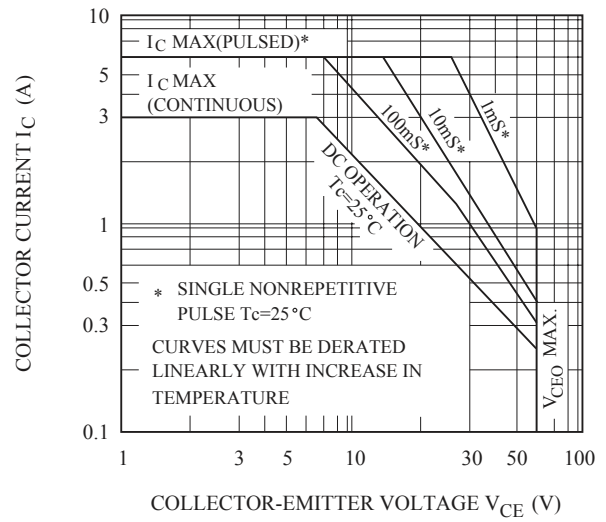
$P_c - T_a$



$h_{FE} - I_C$



SAFE OPERATING AREA



$V_{CE(sat)} - I_C$

