

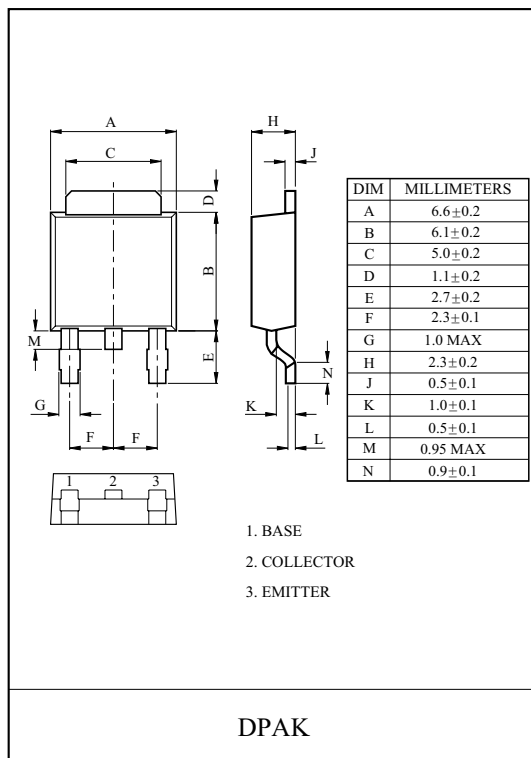
GENERAL PURPOSE APPLICATION.

FEATURES

- Low Collector Saturation Voltage
: $V_{CE(sat)}=1.0V(\text{Max})$ at $I_C=2A, I_B=0.2A$

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	P_C	1	W
	Tc=25°C		20	
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C

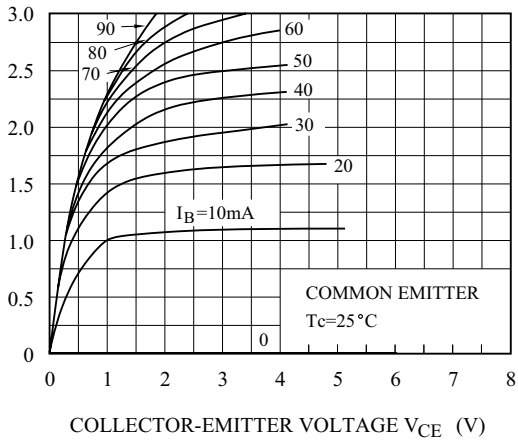


ELECTRICAL CHARACTERISTICS (Ta=25°C)

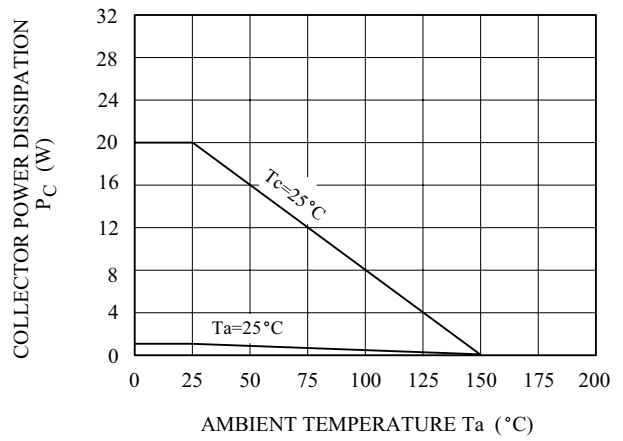
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=80V, I_E=0$	-	-	1	μ A
		I_{CER}	$V_{CE}=100V, R_{BE}=10k\Omega$	-	-	1	μ A
Emitter Cut-off Current		I_{EBO}	$V_{EB}=10V, I_C=0$	-	-	1	μ A
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	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}	<p>$I_{B1}=I_{B2}=0.2A$ DUTY CYCLE ≤ 1%</p>	-	0.085	-	μ S
	Storage Time	t_{stg}		-	1.02	-	
	Fall Time	t_f		-	0.041	-	

KTC2030D

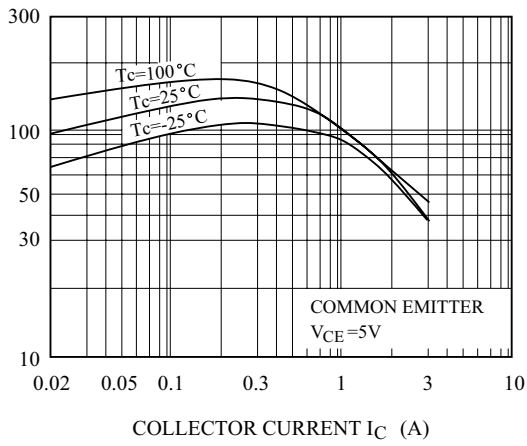
$I_C - V_{CE}$



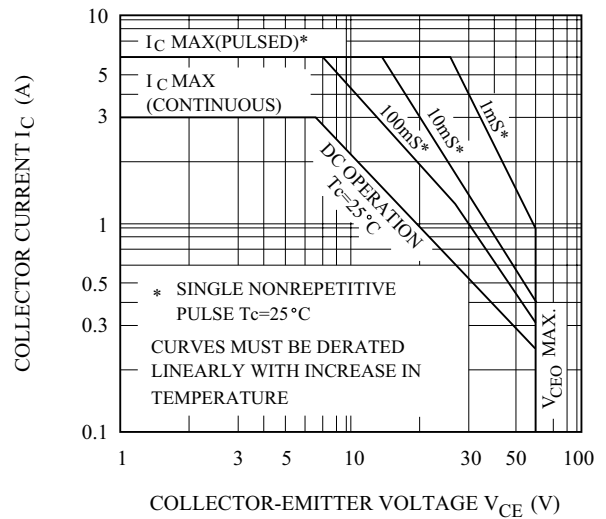
$P_c - T_a$



$h_{FE} - I_C$



SAFE OPERATING AREA



$V_{CE(sat)} - I_C$

