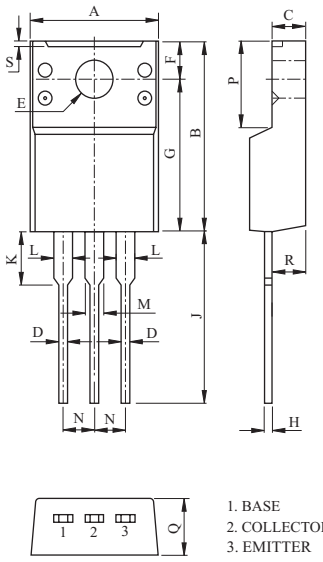
KTC2027

EPITAXIAL PLANAR NPN TRANSISTOR

GENERAL PURPOSE APPLICATION.

FEATURES

- Good Linearity of $h_{FE.}$
- Suffix **U** : Qualified to AEC-Q101.
  ex) KTC2027-Y-U/P**U**



DIM	MILLIMETERS
A	10.0±0.3
B	15.0±0.3
C	2.70±0.3
D	0.76+0.09/-0.05
E	Φ3.2±0.2
F	3.0±0.3
G	12.0±0.3
H	0.5+0.1/-0.05
J	13.6±0.5
K	3.7±0.2
L	1.2+0.25/-0.1
M	1.5+0.25/-0.1
N	2.54±0.1
P	6.8±0.1
Q	4.5±0.2
R	2.6±0.2
S	0.5 Typ

TO-220IS

MAXIMUM RATING (Ta=25℃)

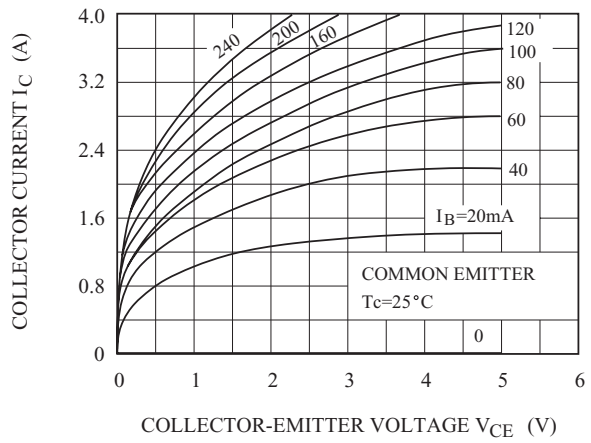
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	4	A
Base Current	I_B	0.4	A
Collector Power Dissipation (Tc=25℃)	P_C	25	W
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃

ELECTRICAL CHARACTERISTICS (Ta=25℃)

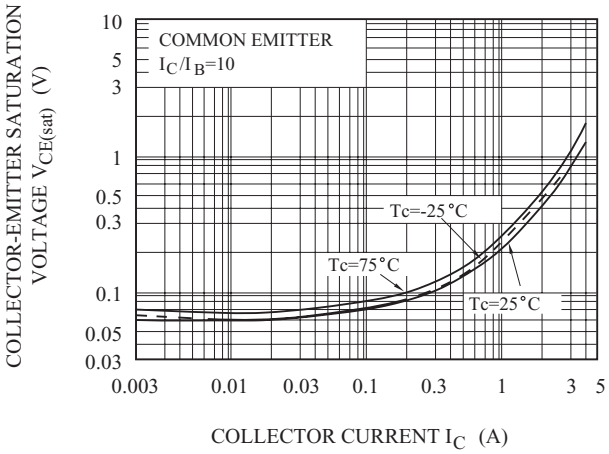
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=80V, I_E=0	-	-	30	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	100	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=50mA, I_B=0	80	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_C=10mA, I_B=0	5	-	-	V
DC Current Gain	h_{FE}(1) (Note)	V_{CE}=5V, I_C=0.5A	70	-	240	
	h_{FE}(2)	V_{CE}=5V, I_C=3A	15	50	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=3A, I_B=0.3A	-	0.45	1.5	V
Base-Emitter Voltage	V_{BE}	V_{CE}=5V, I_C=3A	-	1.0	1.5	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	-	40	-	pF

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

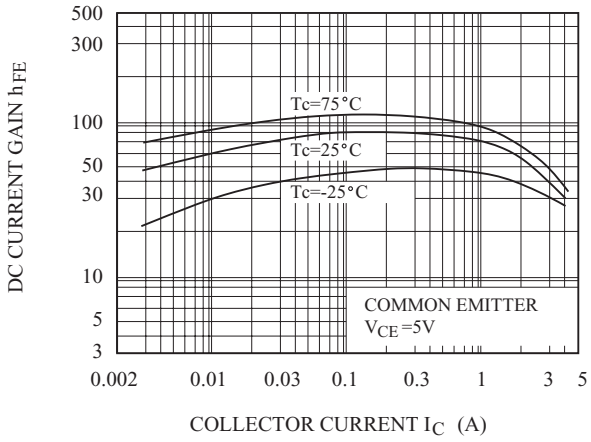
I_C - V_{CE}



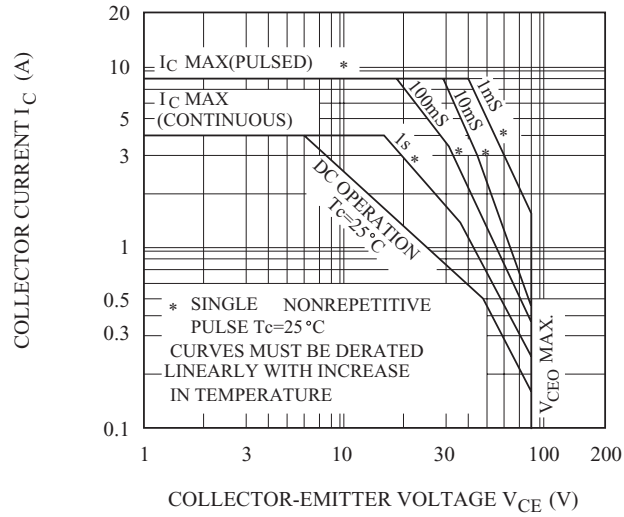
$V_{CE(sat)}$ - I_C



h_{FE} - I_C



SAFE OPERATING AREA



P_C - Ta