

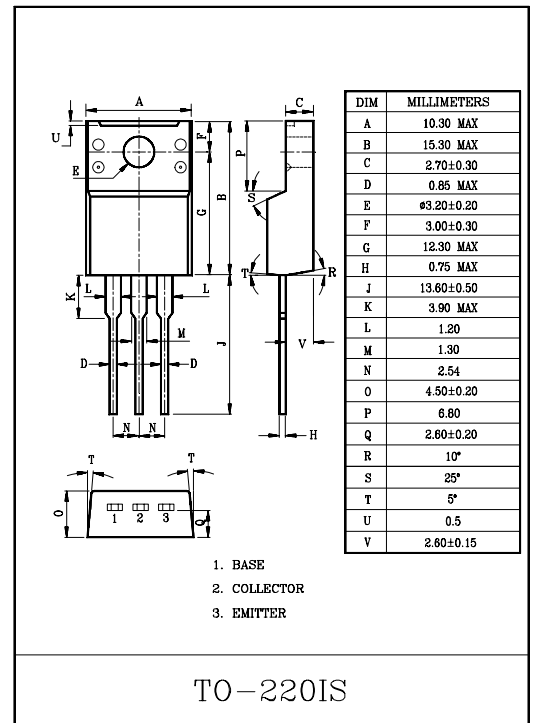
GENERAL PURPOSE APPLICATION.

FEATURES

- Good Linearity of h_{FE} .
- Complementary to KTA1658.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	3	A
Base Current	I_B	0.3	A
Collector Power Dissipation ($T_c=25^\circ\text{C}$)	P_C	15	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55\sim 150$	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=20V, I_E=0$	—	—	1.0	μA
Emitter-Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	—	—	1.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	30	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=2V, I_C=0.5A$	70	—	240	
	$h_{FE(2)}$	$V_{CE}=2V, I_C=2.5A$	25	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=2A, I_B=0.2A$	—	0.3	0.8	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=2V, I_C=0.5A$	—	0.75	1.0	V
Transition Frequency	f_T	$V_{CE}=2V, I_C=0.5A$	—	100	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1\text{MHz}$	—	35	—	pF

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

