

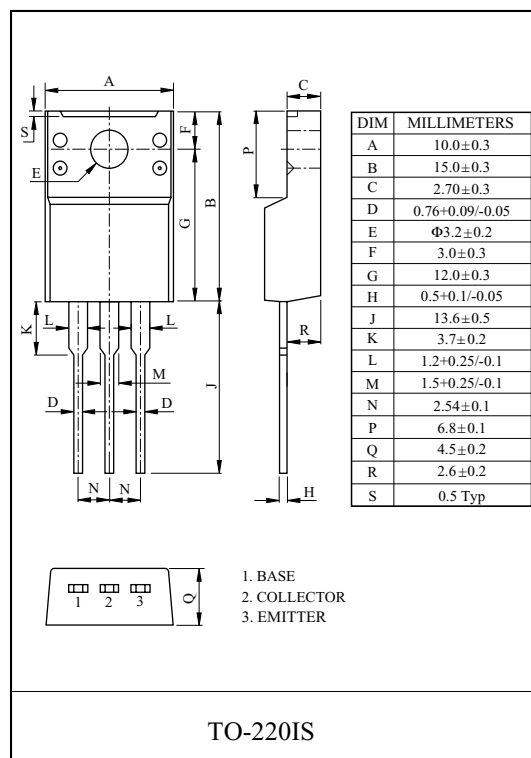
GENERAL PURPOSE APPLICATION.

FEATURES

- Good Linearity of h_{FE} .

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

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 ($T_c=25^\circ\text{C}$)	P_C	25	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 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}	$V_{CB}=80\text{V}, I_E=0$	-	-	30	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$	-	-	100	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=50\text{mA}, I_B=0$	80	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_C=10\text{mA}, I_B=0$	5	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=5\text{V}, I_C=0.5\text{A}$	70	-	240	
	$h_{FE(2)}$	$V_{CE}=5\text{V}, I_C=3\text{A}$	15	50	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=3\text{A}, I_B=0.3\text{A}$	-	0.45	1.5	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=5\text{V}, I_C=3\text{A}$	-	1.0	1.5	V
Transition Frequency	f_T	$V_{CE}=5\text{V}, I_C=0.5\text{A}$	-	30	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	-	40	-	pF

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

