

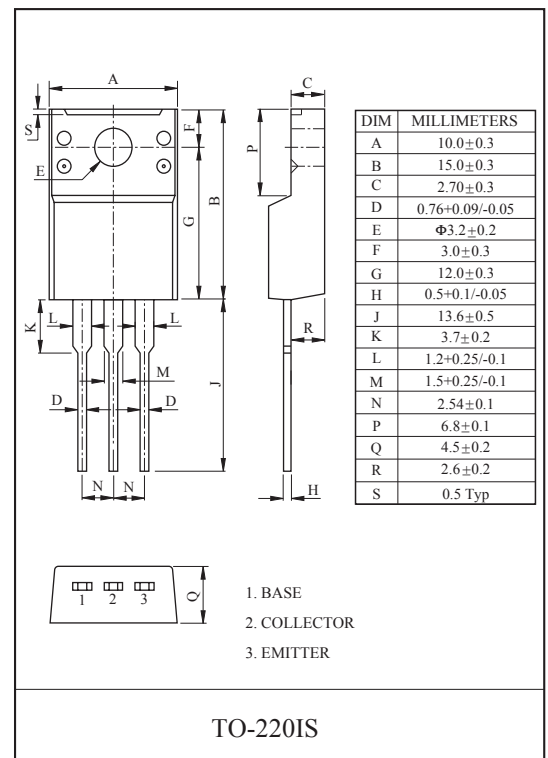
HIGH CURRENT SWITCHING APPLICATIONS.
POWER AMPLIFIER APPLICATIONS.

FEATURES

- High Collector Current : $I_C = -7A$.
- Low Collector-Emitter Saturation Voltage.
: $V_{CE(sat)} = -0.5V(\text{Max.})$ at $I_C = -4A$.
- Suffix U : Qualified to AEC-Q101.
ex) KTB1370-O-U/PU

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-7	A
Base Current	I_B	-1	A
Collector Power Dissipation ($T_c = 25^\circ\text{C}$)	P_C	30	W
Junction Temperature	T_j	50	$^\circ\text{C}$
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}	$V_{CB} = -100V, I_E = 0$	-	-	-5	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = -5V, I_C = 0$	-	-	-5	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C = -50mA, I_B = 0$	-80	-	-	V
DC Current Gain		$h_{FE}(1)$ (Note)	$V_{CE} = -1V, I_C = -1A$	70	-	240	
		$h_{FE}(2)$	$V_{CE} = -1V, I_C = -4A$	30	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = -4A, I_B = -0.4A$	-	-0.3	-0.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C = -4A, I_B = -0.4A$	-	-0.9	-1.4	V
Transition Frequency		f_T	$V_{CE} = -4V, I_C = -1A$	-	10	-	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	250	-	pF
Switching Time	Turn-On Time	t_{on}		-	0.4	-	μS
	Storage Time	t_{stg}		-	2.5	-	
	Fall Time	t_f		-	0.5	-	

Note : $h_{FE}(1)$ Classification O:70~40, Y:120~240

