

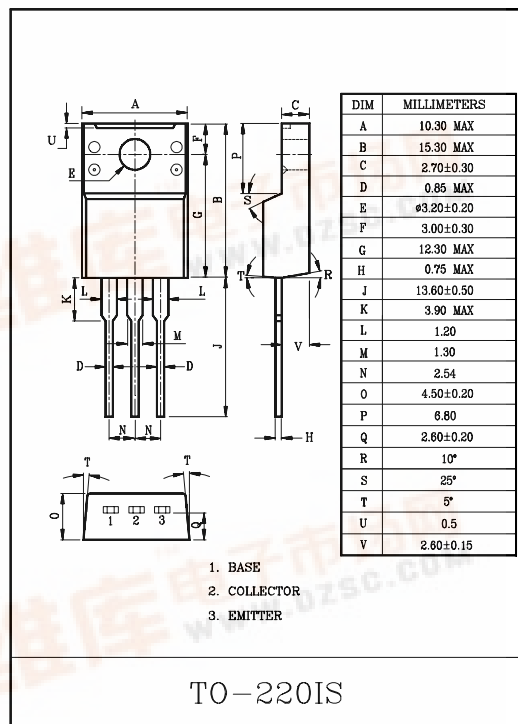
SWITCHING APPLICATION.
HAMMER DRIVER, PULSE MOTOR DRIVER APPLICATION.

FEATURE

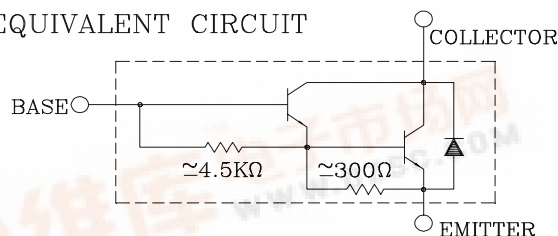
- High DC Current Gain : $h_{FE}=2000(\text{Min.})$ ($V_{CE}=2V, I_C=1A$).

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	100	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	4	A
Base Current	I_B	0.5	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	$^\circ\text{C}$



EQUIVALENT CIRCUIT



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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	I_{CBO}	$V_{CB}=100V, I_E=0$	-	-	20	μA	
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	-	-	2.5	mA	
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	80	-	-	V	
DC Current Gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=1A$	2000	-	-		
	$h_{FE(2)}$	$V_{CE}=2V, I_C=3A$	1000	-	-		
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	$I_C=3A, I_B=6\text{mA}$	-	-	1.5	V
	Base-Emitter	$V_{BE(sat)}$	$I_C=3A, I_B=6\text{mA}$	-	-	2.0	
Switching Time	Turn-on Time	t_{on}		-	0.2	-	μS
	Storage Time	t_{stg}		-	1.5	-	
	Fall Time	t_f		$I_{B1} = -I_{B2} = 6\text{mA}$ DUTY CYCLE ≤ 1%	-	0.6	

KTD1414

