

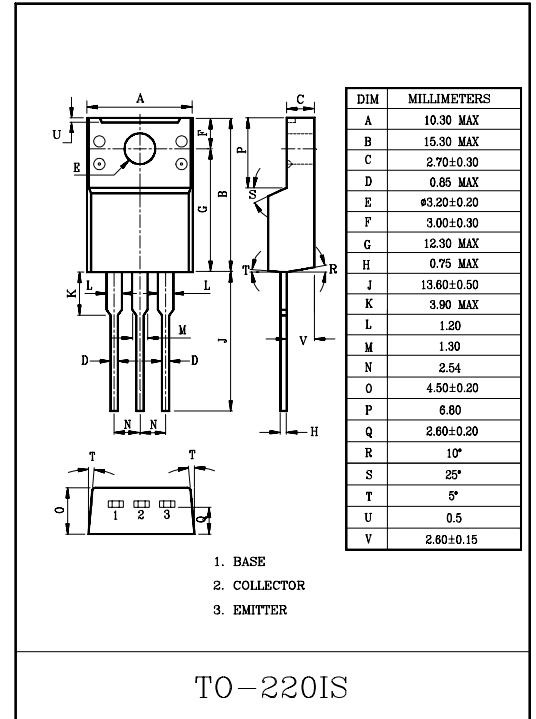
SWITCHING APPLICATION.  
HAMMER DRIVER, PULSE MOTOR DRIVER APPLICATION.

### FEATURE

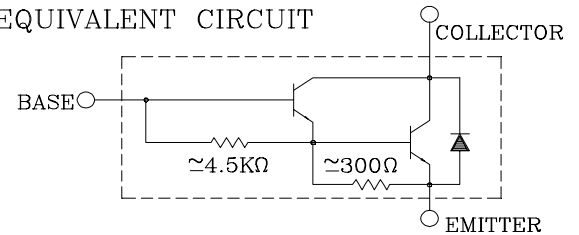
- High DC Current Gain :  $h_{FE}=2000(\text{Min.})$  ( $V_{CE}=2V, I_C=1A$ ).

### 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	$\mu\text{A}$	
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	-	$\mu\text{S}$
	Storage Time	$t_{stg}$		-	1.5	-	
	Fall Time	$t_f$		$I_{B1} = -I_{B2} = 6\text{mA}$ DUTY CYCLE $\leq 1\%$	-	0.6	

