

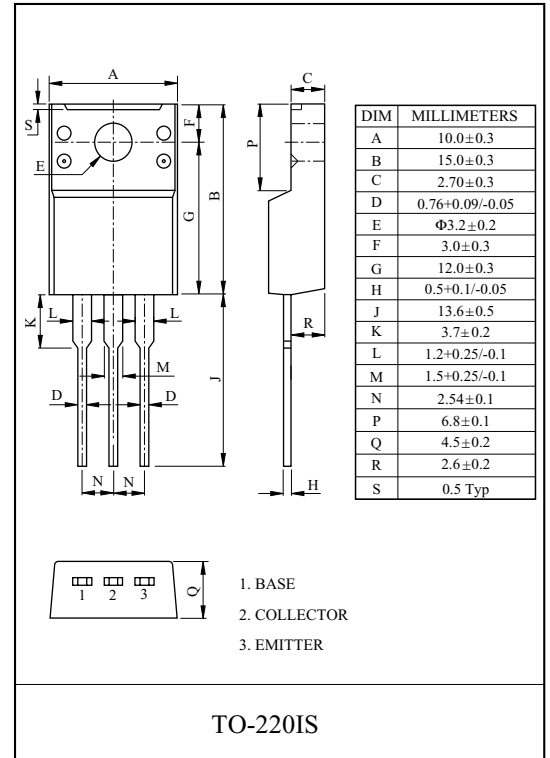
SWITCHING APPLICATIONS.  
HAMMER DRIVER, PULSE MOTOR DRIVER  
APPLICATIONS.

### FEATURES

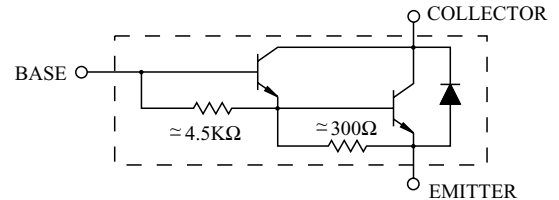
- High DC Current Gain :  $h_{FE}=2000(\text{Min.})$  at  $V_{CE}=2V, I_C=1A$ .

### MAXIMUM RATING (Ta=25 °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	$I_C$	4	A
Base Current	$I_B$	0.5	A
Collector Power Dissipation (Tc=25 °C)	$P_C$	25	W
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C



### EQUIVALENT CIRCUIT



### ELECTRICAL CHARACTERISTICS (Ta=25 °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	$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	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	$V_{CE(sat)}$	$I_C=3A, I_B=6mA$	-	-	1.5	V
	Base-Emitter	$V_{BE(sat)}$	$I_C=3A, I_B=6mA$	-	-	2.0	
Switching Time	Turn-on Time	$t_{on}$	<p><math>I_{B1}=I_{B2}=6mA</math> DUTY CYCLE ≤ 1%</p>	-	0.2	-	μS
	Storage Time	$t_{stg}$		-	1.5	-	
	Fall Time	$t_f$		-	0.6	-	

# KTD1414

