

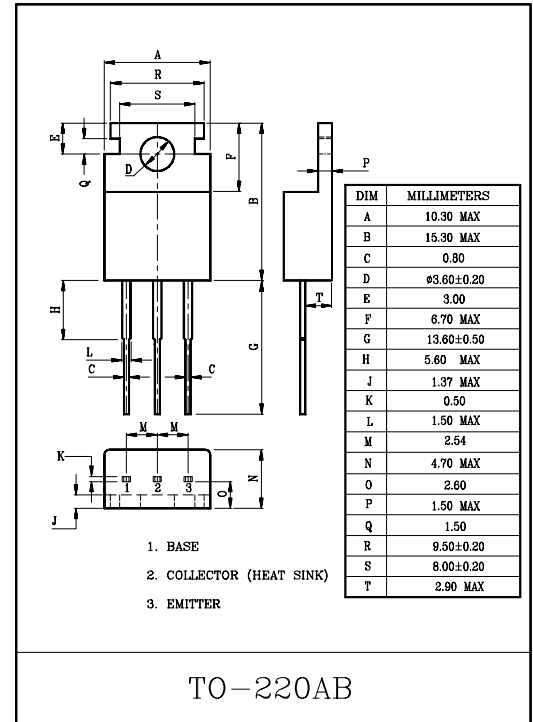
SWITCHING APPLICATIONS.  
HAMMER DRIVER, PULSE MOTOR DRIVER  
APPLICATIONS.

#### FEATURES

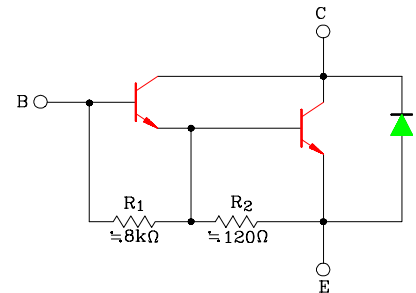
- High DC Current Gain :  $h_{FE}=1000(\text{Min.})$  at  $V_{CE}=3V, I_C=3A$ .
- High Collector Breakdown Voltage :  $V_{CEO}=100V(\text{Min.})$

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		$V_{CBO}$	100	V
Collector-Emitter Voltage		$V_{CEO}$	100	V
Emitter-Base Voltage		$V_{EB0}$	5	V
Collector Current	DC	$I_C$	5	A
	Pules		8	
Base Current		$I_B$	0.12	A
Collector Power Dissipation ( $T_c=25^\circ\text{C}$ )		$P_C$	65	W
Junction Temperature		$T_j$	150	$^\circ\text{C}$
Storage Temperature Range		$T_{stg}$	-55 ~ 150	$^\circ\text{C}$



#### EQUIVALENT CIRCUIT

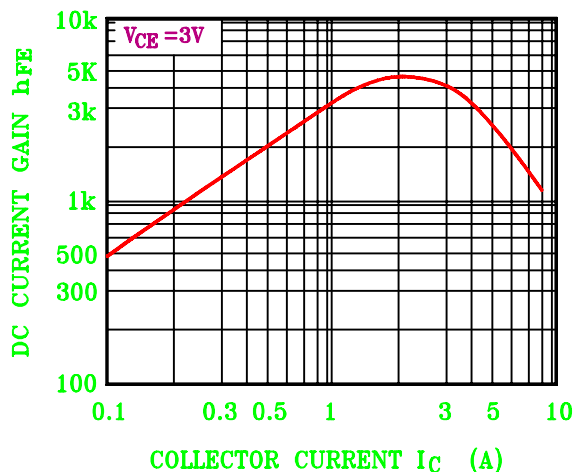


#### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

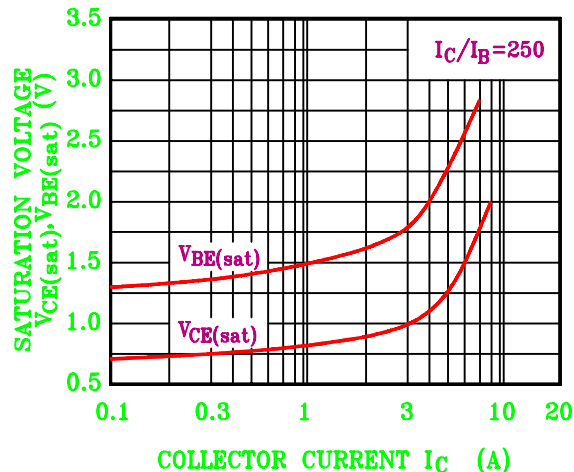
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=100V, I_E=0$	-	-	0.2	mA
Emitter Cut-off Current	$I_{EBO}$	$V_{BE}=5V, I_C=0$	-	-	2	mA
Collector-Emitter Breakdown Voltage	$V_{CEO}$	$I_C=10mA, I_B=0$	100	-	-	V
DC Current Gain	$h_{FE}(1)$	$V_{CE}=3V, I_C=0.5A$	1000	-	10000	
	$h_{FE}(2)$	$V_{CE}=3V, I_C=3A$	1000	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat) 1}$	$I_C=3A, I_B=12mA$	-	-	2	V
	$V_{CE(sat) 2}$	$I_C=5A, I_B=20mA$	-	-	4	
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=3V, I_C=3A$	-	-	2.5	V
Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	-	300	pF

# TIP122

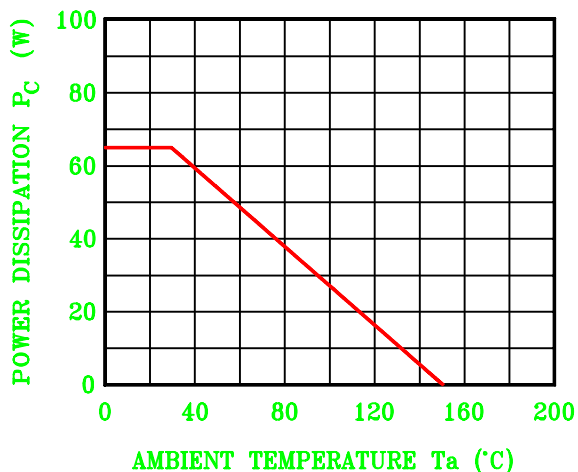
$h_{FE} - I_C$



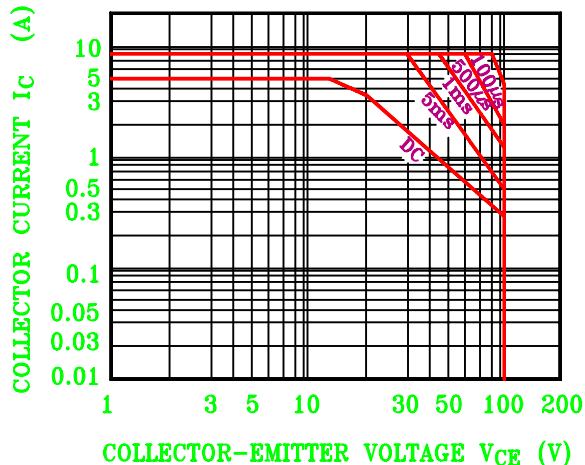
$V_{CE(sat)}, V_{BE(sat)} - I_C$



$P_C - T_a$



SAFE OPERATING AREA



OUTPUT AND INPUT CAPACITANCE vs. REVERSE VOLTAGE

