

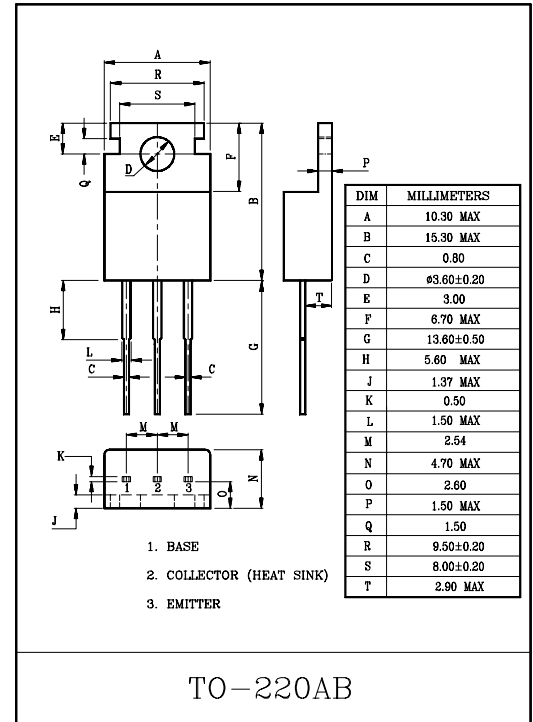
SWITCHING APPLICATIONS.
HAMMER DRIVER, PULSE MOTOR DRIVER
APPLICATIONS.

FEATURES

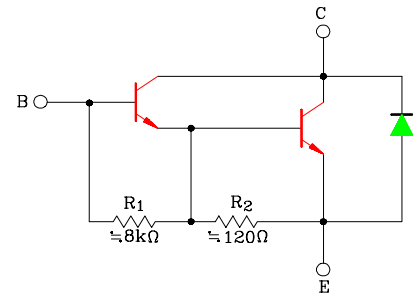
- High DC Current Gain : $h_{FE}=1000(\text{Min.})$ at $V_{CE}=3V, I_C=3A$.
- High Collector Breakdown Voltage : $V_{CEO}=100V(\text{Min.})$

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

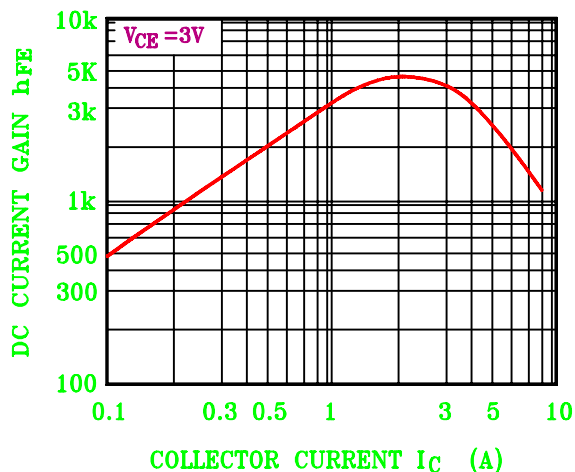


ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

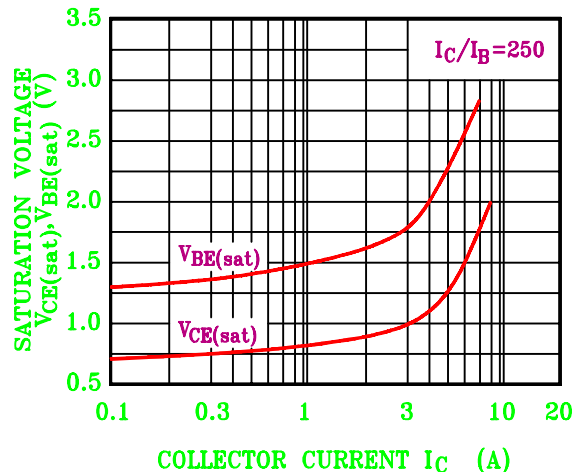
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=100V, I_E=0$	-	-	0.2	mA
Emitter Cut-off Current	I_{EBO}	$V_{BE}=5V, I_C=0$	-	-	2	mA
Collector-Emitter Breakdown Voltage	V_{CEO}	$I_C=10mA, I_B=0$	100	-	-	V
DC Current Gain	$h_{FE}(1)$	$V_{CE}=3V, I_C=0.5A$	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

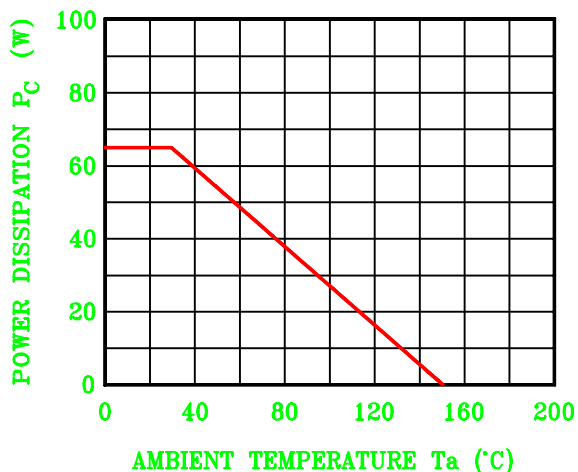
$h_{FE} - I_C$



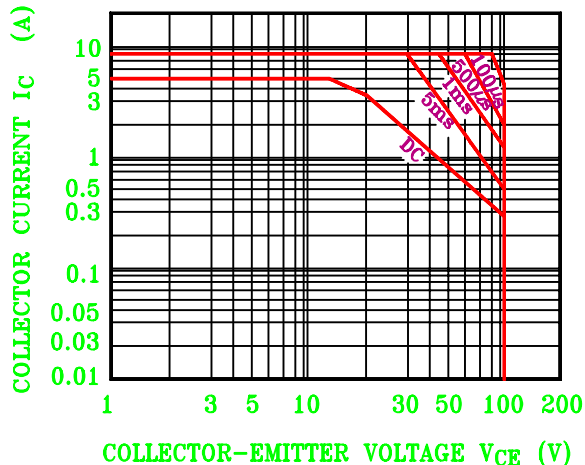
$V_{CE(sat)}, V_{BE(sat)} - I_C$



$P_C - T_a$



SAFE OPERATING AREA



OUTPUT AND INPUT CAPACITANCE vs. REVERSE VOLTAGE

