

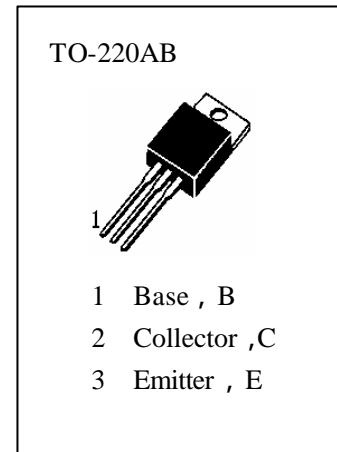


APPLICATIONS

Medium Power Linear switching Applications.

ABSOLUTE MAXIMUM RATINGS ($T_a=25$)

T_{stg}	—Storage Temperature.....	-55~150
T_j	—Junction Temperature.....	150
P_C	—Collector Dissipation($T_c=25$).....	40W
P_C	—Collector Dissipation ($T_a=25$)	2W
V_{CBO}	—Collector-Base Voltage、	
V_{CEO}	—Collector-Emitter Voltage	
	HEP32.....	-40V
	HEP32A.....	-60V
	HEP32B.....	-80V
	HEP32C.....	-100V
V_{EBO}	—Emitter-Base Voltage.....	-5V
I_C	—Collector Current(DC)	-3A
I_C	—Collector Current (Pulse)	-5A
I_b	—Base Current.....	-1A



ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
BV _{CEO}	Collector-Emitter Breakdown Voltage HEP32	-40			V	$I_C=-30mA, I_B=0$
	HEP32A	-60			V	
	HEP32B	-80			V	
	HEP32C	-100			V	
ICEO	Collector Cut-off Current HEP31/ HEP32A			-0.3	mA	$V_{CB}=-30V, I_B=0$
	HEP31B/ HEP32C			-0.3	mA	$V_{CB}=-60V, I_B=0$
ICES	Collector Cut-off Current HEP32			-200	μA	$V_{CE}=-40V, V_{EB}=0$
	HEP32A			-200	μA	$V_{CE}=-60V, V_{EB}=0$
	HEP32B			-200	μA	$V_{CE}=-80V, V_{EB}=0$
	HEP32C			-200	μA	$V_{CE}=-100V, V_{EB}=0$
H _{FE} (1)	*DC Current Gain	25				$V_{CE}=-4V, I_C=-1A$
H _{FE} (2)		10	50			$V_{CE}=-4V, I_C=-3A$
V _{CE(sat)}	*Collector- Emitter Saturation Voltage			-1.2	V	$I_C=-3A, I_B=-375mA$
V _{BE(ON)}	*Base-Emitter On Voltage			-1.8	V	$V_{CE}=-4V, I_C=-3A$
I _{EBO}	Emitter Cut-off Current			-1	mA	$V_{EB}=-5V, I_C=0$
f _T	Current Gain-Bandwidth Product	3.0			MHz	$V_{CE}=-10V, I_C=-500mA, f=1MHz$

*Pulse Test : PW 300 μs , Duty cycle 2%



Typical Characteristics

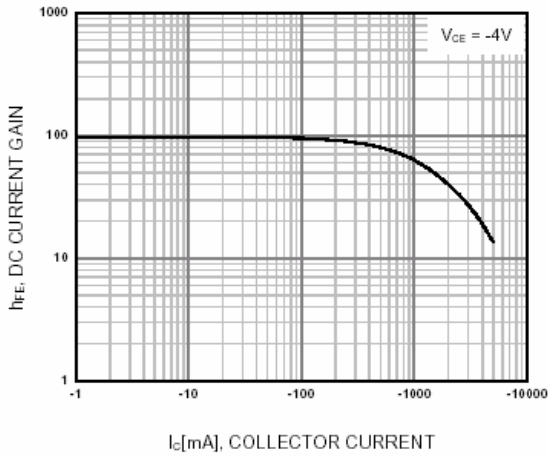


Figure 1. DC current Gain

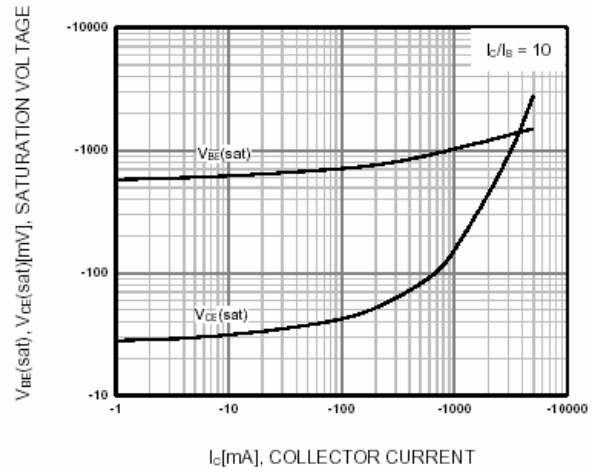


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

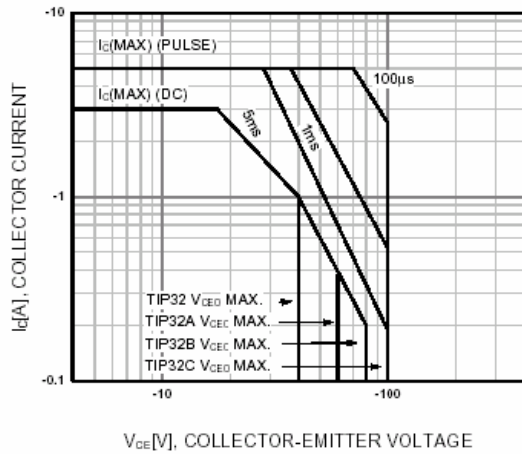


Figure 3. Safe Operating Area

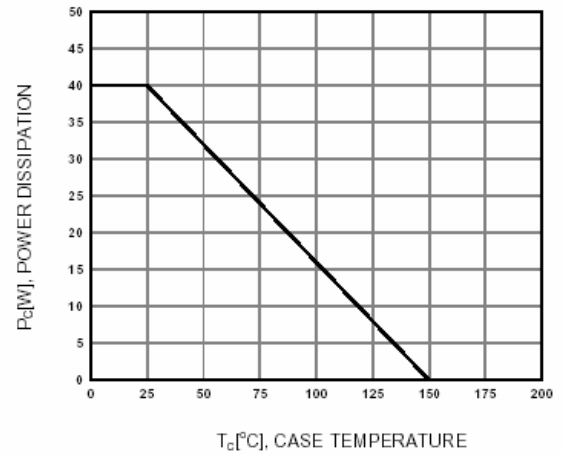


Figure 4. Power Derating