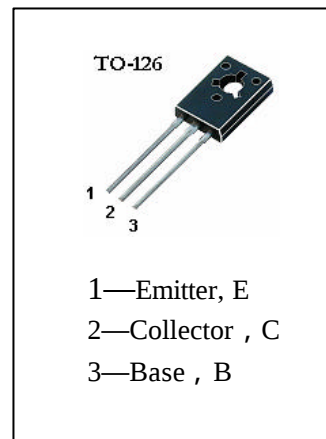


**HSBD434****APPLICATIONS**

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 ($T_c=25$)	36W
V_{CBO} —Collector-Base Voltage.....	-22V
V_{CEO} —Collector-Emitter Voltage.....	-22V
V_{CES} —Collector-Emitter Voltage.....	-22V
V_{EBO} —Emitter-Base Voltage.....	-5V
I_C —Collector Current(Pulse).....	-7A
I_C —Collector Current (DC)	-4A
I_B —Base Current.....	-1A

**ELECTRICAL CHARACTERISTICS ($T_a=25$)**

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
ICBO	Collector Cut-off Current			-100	μA	$V_{CB}=-22V, I_E=0$
IEBO	Emitter Cut-off Current			-1	mA	$V_{EB}=-5V, I_C=0$
ICES	Collector Cut-off Current			-100	μA	$V_{CE}=-22V, V_{EB}=0$
*HFE (1)	DC Current Gain	40	140			$V_{CE}=-5V, I_C=-10mA$
*HFE (2)	DC Current Gain	85	140			$V_{CE}=-1V, I_C=-500mA$
*HFE (3)	DC Current Gain	50				$V_{CE}=-1V, I_C=-2A$
*VCE(sat)	Collector- Emitter Saturation Voltage		-0.2	-0.5	V	$I_C=-2A, I_B=-0.2A$
*VBE(on)	Base-Emitter On Voltage			-1.1	V	$V_{CE}=-1V, I_C=-2A$
VCEO(sus)	Collector-Emitter Sustaining Voltage	-22			V	$I_C=-100mA, I_B=0$
f _t	Current Gain-Bandwidth Product	3			MHz	$V_{CE}=-1V, I_C=-250mA,$

* Pulse Test :PW=300 μS , Duty Cycle=1.5% Pulsed