



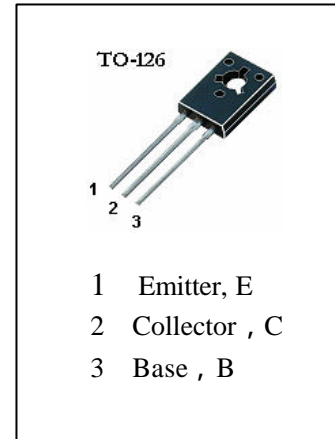
HSBD442

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.....	-80V
V_{CEO} —Collector-Emitter Voltage.....	-80V
V_{CES} —Collector-Emitter Voltage.....	-80V
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	$V_{CB}=-80V, I_E=0$
IEBO	Emitter Cut-off Current			-1	mA	$V_{EB}=-5V, I_C=0$
ICES	Collector Cut-off Current			-100	μA	$V_{CE}=-80V, V_{EB}=0$
*HFE (1)	DC Current Gain	15	140			$V_{CE}=-5V, I_C=-10mA$
*HFE (2)	DC Current Gain	40	140			$V_{CE}=-1V, I_C=-500mA$
*HFE (3)	DC Current Gain	15				$V_{CE}=-1V, I_C=-2A$
*VCE(sat)	Collector- Emitter Saturation Voltage			-0.8	V	$I_C=-2A, I_B=-0.2A$
*VBE(on1)	Base-Emitter On Voltage		-0.58		V	$V_{CE}=-5V, I_C=-10mA$
*VBE(on2)	Base-Emitter On Voltage			-1.5	V	$V_{CE}=-1V, I_C=-2A$
VCEO(sus)	Collector-Emitter Sustaining Voltage	-80			V	$I_C=-100mA, I_B=0$
fi	Current Gain-Bandwidth Product	3			MHZ	$V_{CE}=-1V, I_C=-250mA,$

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