



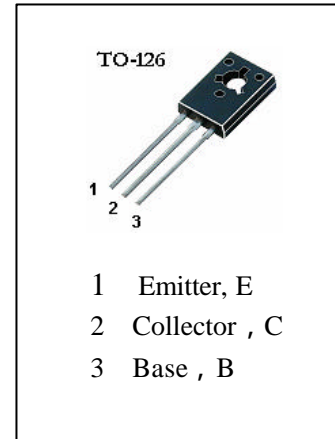
HSBD380

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 ($T_c=25$)	25W
V_{CBO} —Collector-Base Voltage.....	-100V
V_{CEO} —Collector-Emitter Voltage.....	-80V
V_{EBO} —Emitter-Base Voltage.....	-5V
I_C —Collector Current(Pulse).....	-3A
I_C —Collector Current (DC)	-2A
I_b —Base Current.....	-1A



ELECTRICAL CHARACTERISTICS ($T_a=25$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
ICBO	Collector Cut-off Current			-2	μA	$V_{CB}=-80V, I_E=0$
IEBO	Emitter Cut-off Current			-100	μA	$V_{EB}=-5V, I_C=0$
* $H_{FE}(1)$	DC Current Gain	40		375		$V_{CE}=-2V, I_C=-150mA$
* $H_{FE}(2)$	DC Current Gain	20				$V_{CE}=-2V, I_C=-1A$
* $V_{CE(sat)}$	Collector- Emitter Saturation Voltage			-1	V	$I_C=-1A, I_B=-0.1A$
* $V_{BE(on)}$	Base-Emitter On Voltage			-1.5	V	$V_{CE}=-2V, I_C=-1A$
$V_{CEO(sus)}$	Collector-Emitter Sustaining Voltage	-80			V	$I_C=-100mA, I_B=0$
BVCBO	Collector-Base Breakdown Voltage	-100			V	$I_C=-100 \mu A, I_E=0$
tON	Turn-On Time		50		nS	} $V_{CC}=-30V, I_C=-0.5A$ $I_{B1}=-I_{B2}=-0.05A$
tOFF	Turn-Off Time		500		nS	

* Pulse Test: $PW=350 \mu S$, Duty Cycle=2% Pulsed

$h_{FE(3)}$ Classification

Cassification	6	10	16	25
$h_{FE(3)}$	40~100	63~160	100~250	150~375