



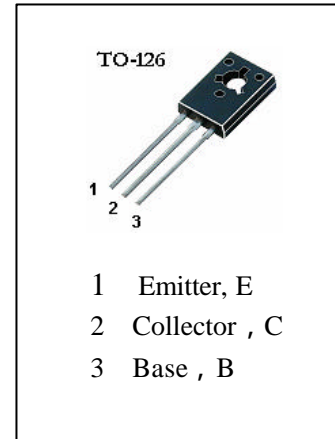
HSBD439

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.....	60V
V_{CEO} —Collector-Emitter Voltage.....	60V
V_{CES} —Collector-Emitter Voltage.....	60V
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	$V_{CB}=60V, I_E=0$
IEBO	Emitter Cut-off Current			1	mA	$V_{EB}=5V, I_C=0$
ICES	Collector Cut-off Current			100	μA	$V_{CE}=60V, V_{EB}=0$
*HFE (1)	DC Current Gain	20	130			$V_{CE}=5V, I_C=10mA$
*HFE (2)	DC Current Gain	40	140			$V_{CE}=1V, I_C=500mA$
*HFE (3)	DC Current Gain	25				$V_{CE}=1V, I_C=2A$
*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	60			V	$I_C=100mA, I_B=0$
fi	Current Gain-Bandwidth Product	3			MHZ	$V_{CE}=1V, I_C=250mA,$

* Pulse Test : $PW=300 \mu S, Duty Cycle=1.5\%$ Pulsed