



Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

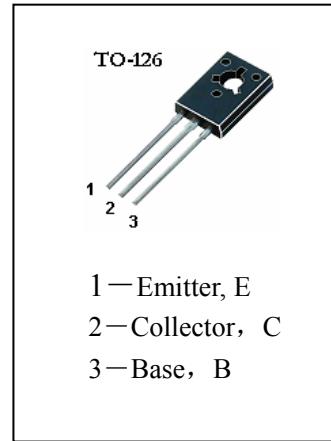
# HSBD237

## ■ APPLICATIONS

Medium Power Linear switching Applications

## ■ ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

$T_{stg}$	Storage Temperature	-55~150 °C
$T_j$	Junction Temperature	150 °C
$P_c$	Collector Dissipation ( $T_c=25^\circ\text{C}$ )	25W
$V_{CBO}$	Collector-Base Voltage	100V
$V_{CEO}$	Collector-Emitter Voltage	80V
$V_{CER}$	Collector-Emitter Voltage	100V
$V_{EBO}$	Emitter-Base Voltage	5V
$I_c$	Collector Current (Pulse)	6A
$I_c$	Collector Current (DC)	2A



## ■ ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ )

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
$I_{CBO}$	Collector Cut-off Current			100	$\mu\text{ A}$	$V_{CB}=100\text{V}, I_E=0$
$I_{EBO}$	Emitter-Base Cut-off Current			1	mA	$V_{EB}=5\text{V}, I_C=0$
$h_{FE(1)}$	DC Current Gain	40				$V_{CE}=2\text{V}, I_c=150\text{mA}$
* $h_{FE(2)}$		25				$V_{CE}=2\text{V}, I_c=1\text{A}$
* $V_{CE(\text{sat})}$	Collector-Emitter Saturation Voltage			0. 6	V	$I_c=1\text{A}, I_B=0. 1\text{A}$
* $V_{BE(\text{ON})}$	Base-Emitter On Voltage			1. 3	V	$I_c=1\text{A}, V_{CE}=2\text{V}$
$V_{CEO(\text{SUS})}$	Collector-Emitter Sustaining Voltage	80				$I_c=100\text{mA}, I_B=0$
$f_T$	Current Gain-Bandwidth Product	3			MHz	$I_c=250\text{mA}, V_{CE}=10\text{V}$

\* Pulse Test: PW=350  $\mu\text{ S}$ , Duty Cycle  $\leqslant 1.5\%$  Pulsed