



Shantou Huashan Electronic Devices Co.,Ltd.

NPN SILICON TRANSISTOR

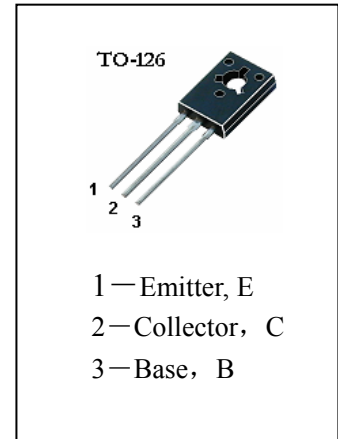
HSBD435

APPLICATIONS

Medium Power Linear switching Applications

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

T_{stg}	Storage Temperature	$-55\sim 150^{\circ}\text{C}$
T_j	Junction Temperature	150°C
P_C	Collector Dissipation ($T_c=25^{\circ}\text{C}$)	36W
V_{CBO}	Collector-Base Voltage	32V
V_{CEO}	Collector-Emitter Voltage	32V
V_{CES}	Collector-Emitter Voltage	32V
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 ($T_a=25^{\circ}\text{C}$)

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
ICBO	Collector Cut-off Current			100	μA	$V_{\text{CB}}=32\text{V}, I_{\text{E}}=0$
IEBO	Emitter Cut-off Current			1	mA	$V_{\text{EB}}=5\text{V}, I_{\text{C}}=0$
*H _{FE} (1)	DC Current Gain	40	130			$V_{\text{CE}}=5\text{V}, I_{\text{C}}=10\text{mA}$
*H _{FE} (2)	DC Current Gain	85	140			$V_{\text{CE}}=1\text{V}, I_{\text{C}}=500\text{mA}$
*H _{FE} (3)	DC Current Gain	50				$V_{\text{CE}}=1\text{V}, I_{\text{C}}=2\text{A}$
*V _{CE(sat)}	Collector- Emitter Saturation Voltage		0.2	0.5	V	$I_{\text{C}}=2\text{A}, I_{\text{B}}=0.2\text{A}$
*V _{BE(on)}	Base-Emitter On Voltage			1.1	V	$V_{\text{CE}}=1\text{V}, I_{\text{C}}=2\text{A}$
V _{CEO(sus)}	Collector-Emitter Sustaining Voltage	32			V	$I_{\text{C}}=100\text{mA}, I_{\text{B}}=0$
f _t	Current Gain-Bandwidth Product	3			MHz	$V_{\text{CE}}=1\text{V}, I_{\text{C}}=250\text{mA},$

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