

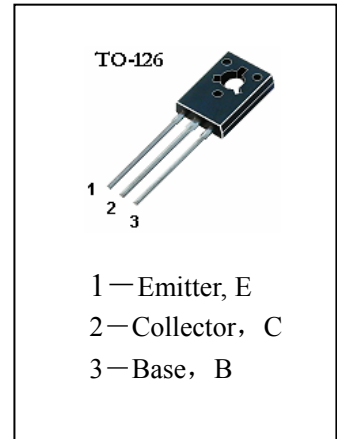


■ APPLICATIONS

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 ($T_c=25^\circ\text{C}$) 12.5W
- P_C —Collector Dissipation ($T_A=25^\circ\text{C}$) 1.25W
- V_{CBO} —Collector-Base Voltage..... 60V
- V_{CEO} —Collector-Emitter Voltage..... 60V
- V_{EBO} —Emitter-Base Voltage..... 5V
- I_C —Collector Current (Pulse) 3A
- I_C —Collector Current (DC) 1.5A
- I_B —Base Current.....0.5A



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

Symbol	Characteristics	Min	Typ	Max	Unit	Test Conditions
I_{CBO}	Collector Cut-off Current			0.1	μA	$V_{CB}=30\text{V}, I_E=0$
I_{EBO}	Emitter-Base Cut-off Current			10	μA	$V_{EB}=5\text{V}, I_C=0$
$h_{FE(1)}$	DC Current Gain	25				$V_{CE}=2\text{V}, I_C=5\text{mA}$
$h_{FE(2)}$		25				$V_{CE}=2\text{V}, I_C=0.5\text{A}$
$h_{FE(3)}$		40		250		$V_{CE}=2\text{V}, I_C=150\text{mA}$
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage			0.5	V	$I_C=500\text{mA}, I_B=50\text{mA}$
$V_{BE(ON)}$	Base-Emitter On Voltage			1.0	V	$I_C=0.5\text{A}, V_{CE}=2\text{V}$
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	60				$I_C=30\text{mA}, I_B=0$

■ $h_{FE(3)}$ Classification

Classification	6	10	16
$h_{FE(3)}$	40~100	63~160	100~250