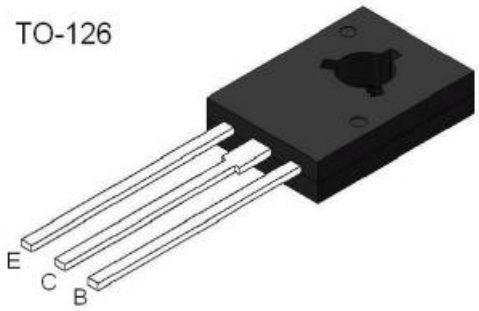
MJE172

TO-126 Bipolar Transistor 双极型三极管



■Features 特点

PNP Low Saturation Voltage 低饱和压降

■Applications 应用

Low Power Audio Amplifier 低功率音频放大
Low Current High Speed Switching 低电流高速开关

■Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Collector-Base Voltage 集电极基极电压	V_{CBO}	-100	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	-80	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	-7	V
Collector Current 集电极电流	I_C	-3	A
Collector Current Pulse 集电极脉冲电流	I_{CP}	-6	A
Power dissipation 耗散功率	$P_C(T_a=25℃)$ (Tc=25℃)	1.5 12.5	W
Junction Temperature 结温	T_J	150	℃
Storage Temperature 储藏温度	T_{stg}	-55to+150	℃

■Electrical Characteristics 电特性

(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃**)**

Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压(I_C= -100μA，I_E=0)	BV_{CBO}	-100	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I_C= -1mA，I_B=0)	BV_{CEO}	-80	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E= -100μA，I_C=0)	BV_{EBO}	-7	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V_{CB}= -100V，I_E=0)	I_{CBO}	—	—	-0.1	μA
Emitter-Base Leakage Current 发射极基极漏电流(V_{EB}= -7V，I_C=0)	I_{EBO}	—	—	-0.1	μA
DC Current Gain(V_{CE}= -1V，I_C= -100mA) 直流电流增益(V_{CE}= -1V，I_C= -500mA) (V_{CE}= -1V，I_C= -1.5A)	H_{FE}	50 30 12	—	250	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I_C= -500mA，I_B= -50mA) (I_C= -1.5A，I_B= -150mA) (I_C= -3A，I_B= -600mA)	$V_{CE(sat)}$	—	—	-0.3 -0.9 -1.7	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(I_C= -1.5A，I_B= -150mA) (I_C= -3A，I_B= -600mA)	$V_{BE(sat)}$	—	—	-1.5 -2	V
Base-Emitter On Voltage 基极发射极开通电压(V_{CE}= -1V，I_C= -500mA)	$V_{BE(on)}$	—	—	-1.2	V
Transition Frequency 特征频率(V_{CE}= -10V，I_C= -100mA)	f_T	50	—	—	MHz
Output Capacitance 输出电容(V_{CB}= -10V，I_E=0, f=1MHz)	C_{ob}	—	—	50	pF

■Typical Characteristic Curve 典型特性曲线

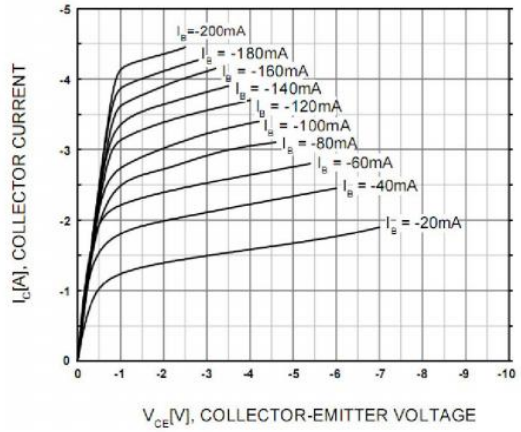


Figure 1. Static Characteristic

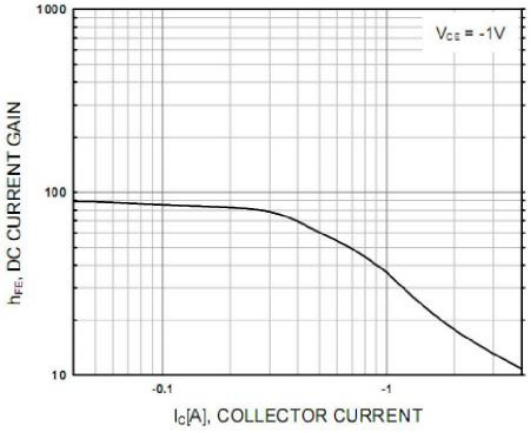


Figure 2. DC current Gain

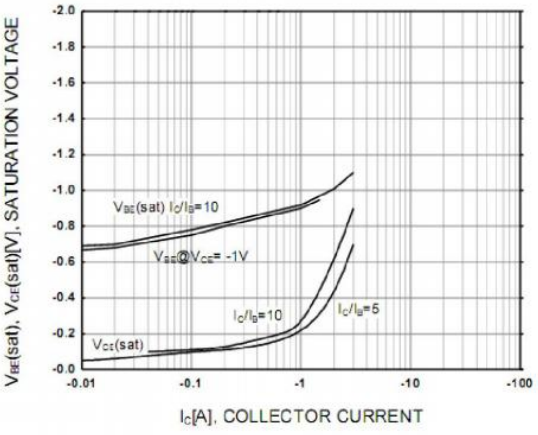


Figure 3. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

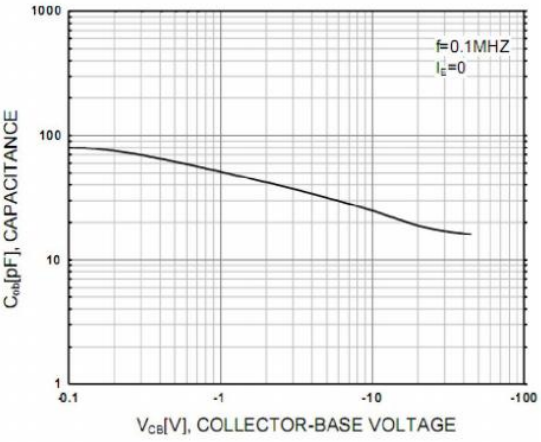


Figure 4. Collector Output Capacitance

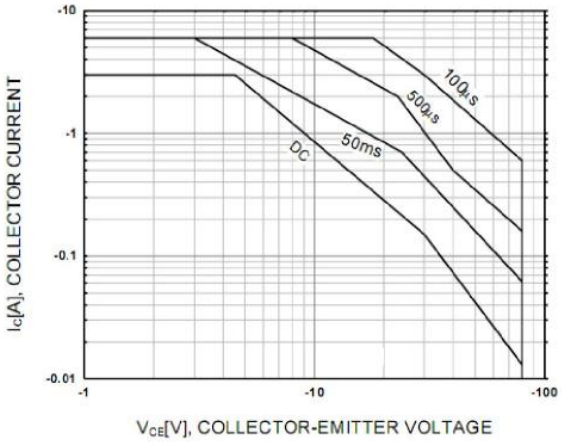


Figure 5. Safe Operating Area

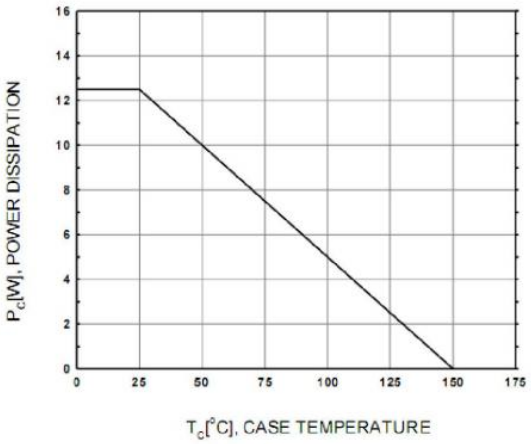
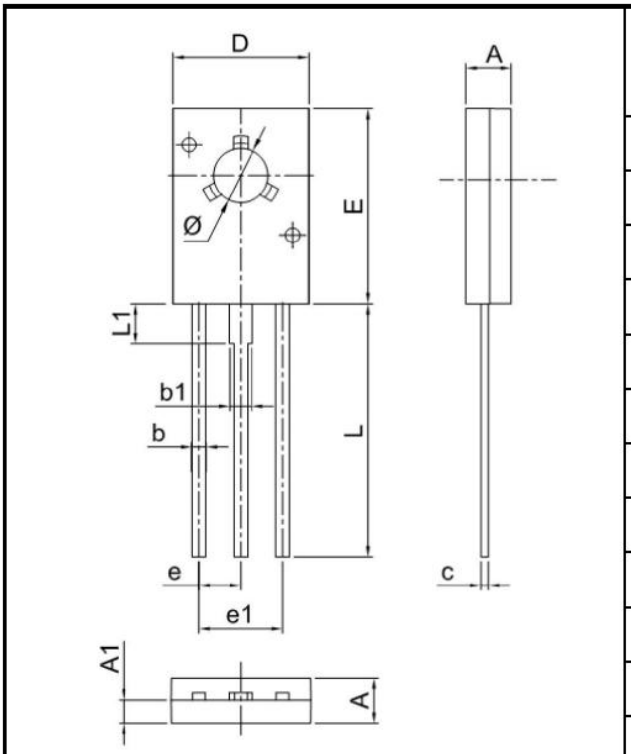


Figure 6. Power Derating

■Dimension 外形封装尺寸



Dim	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.80	0.094	0.110
A1	1.00	1.40	0.039	0.055
b	0.66	0.86	0.026	0.034
b1	1.17	1.37	0.046	0.054
c	0.40	0.60	0.016	0.024
D	7.30	7.70	0.287	0.303
E	10.60	11.00	0.417	0.433
e	2.25	2.33	0.089	0.092
e1	4.50	4.66	0.177	0.183
L	14.00	15.00	0.551	0.591
L1	1.90	2.50	0.075	0.098
Φ	3.10	3.30	0.122	0.130