

TO-126 Plastic-Encapsulate Transistors

MJE172 TRANSISTOR (PNP)

FEATURES

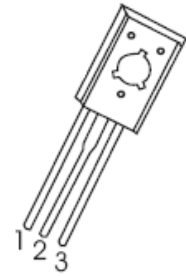
- Low Power Audio Amplifier
- Low Current, High Speed Switching Applications

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CB0}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current	-3	A
P_C	Collector Power Dissipation	1.5	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	83	$^\circ\text{C}/\text{W}$
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^\circ\text{C}$

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1. EMITTER
2. COLLECTOR
3. BASE



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-1\text{mA}, I_E=0$	-100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-1\text{mA}, I_C=0$	-7			V
Collector cut-off current	I_{CBO}	$V_{CB}=-100\text{V}, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-7\text{V}, I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-1\text{V}, I_C=-100\text{mA}$	50		250	
	$h_{FE(2)}$	$V_{CE}=-1\text{V}, I_C=-500\text{mA}$	30			
	$h_{FE(3)}$	$V_{CE}=-1\text{V}, I_C=-1.5\text{A}$	12			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500\text{mA}, I_B=-50\text{mA}$			-0.3	V
		$I_C=-3\text{A}, I_B=-600\text{mA}$			-1.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-1.5\text{A}, I_B=-150\text{mA}$			-1.5	V
		$I_C=-3\text{A}, I_B=-600\text{mA}$			-2	V
Base-emitter voltage	V_{BE}	$V_{CE}=-1\text{V}, I_C=-500\text{mA}$			-1.2	V
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0, f=10\text{MHz}$			50	pF
Transition frequency	f_T	$V_{CE}=-10\text{V}, I_C=-100\text{mA}, f=10\text{MHz}$	50			MHz