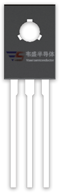
MJE170 TRANSISTOR (PNP)

FEATURES

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



TO-126

ORDERING INFORMATION

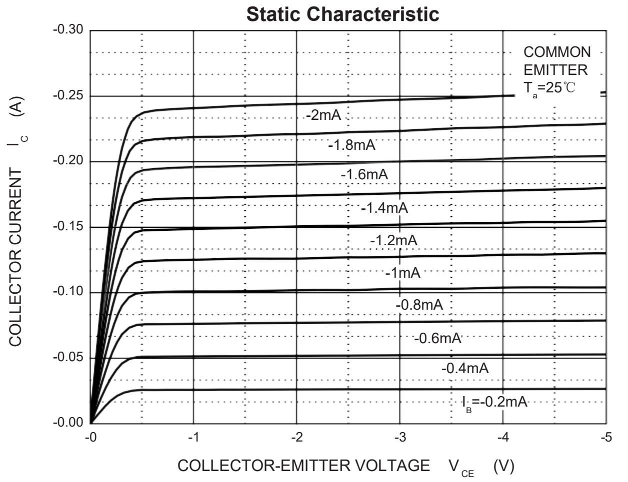
Part Number	Package	Packing Method	Pack Quantity
MJE170	TO-126	Bulk	200pcs/Bag
MJE170-TU	TO-126	Tube	60pcs/Tube

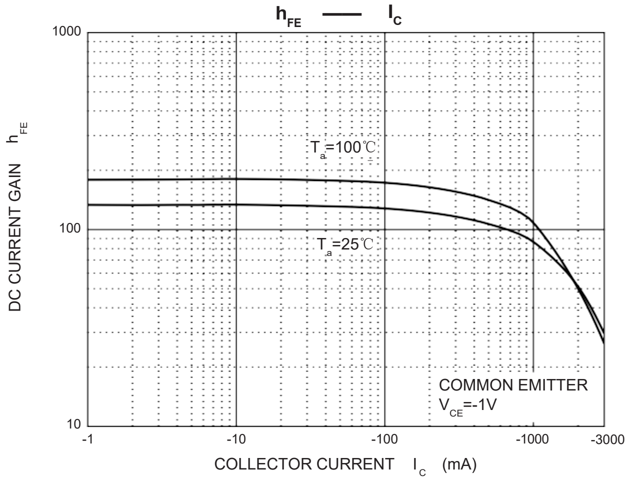
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

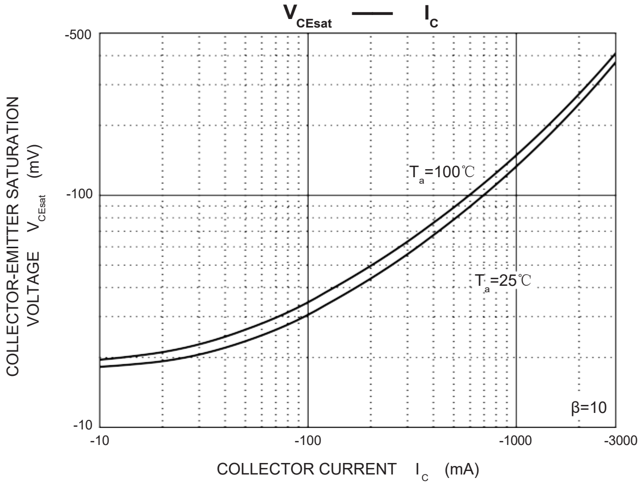
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-7	V
I_C	Collector Current	-3	A
P_C	Collector Power Dissipation	1.5	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	83	℃/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

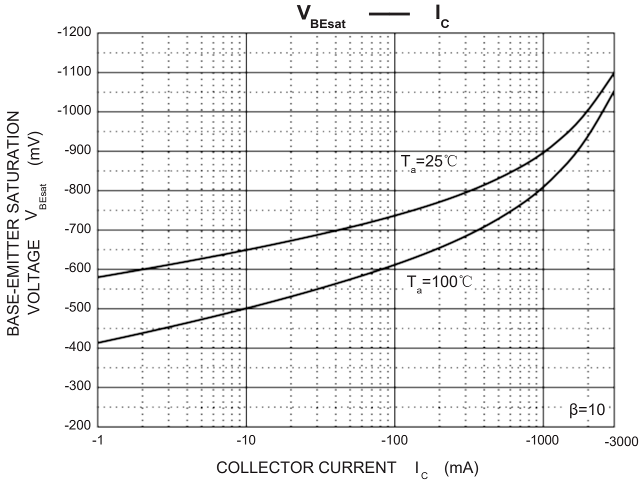
T_a=25℃ unless otherwise specified

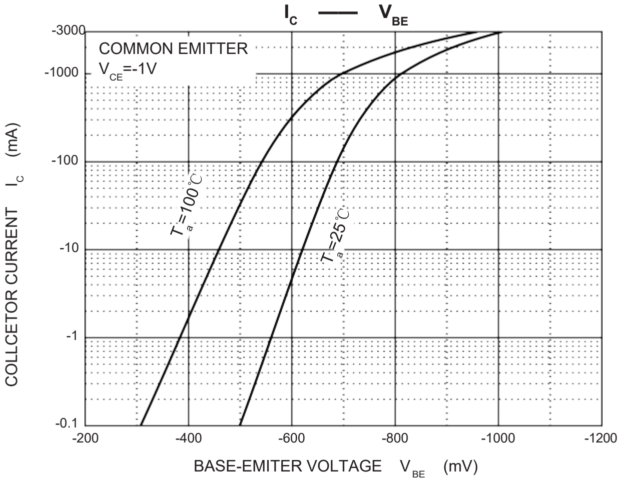
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-1mA,I_E=0	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA,I_B=0	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-1mA,I_C=0	-7			V
Collector cut-off current	I_{CBO}	V_{CB}=-60V,I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-7V,I_C=0			-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V, I_C=-100mA	50		250	
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-500mA	30			
	$h_{FE(3)}$	V_{CE}=-1V, I_C=-1.5A	12			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA,I_B=-50mA			-0.3	V
		I_C=-3A,I_B=-600mA			-1.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-1.5A,I_B=-150mA			-1.5	V
		I_C=-3A,I_B=-600mA			-2	V
Base-emitter voltage	V_{BE}	V_{CE}=-1V, I_C=-500mA			-1.2	V
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0, f=10MHz			50	pF
Transition frequency	f_T	V_{CE}=-10V,I_C=-100mA, f=10MHz	50			MHz

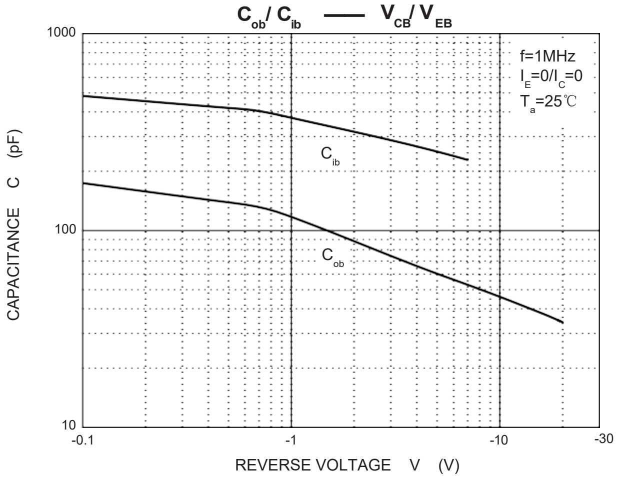

Static Characteristic

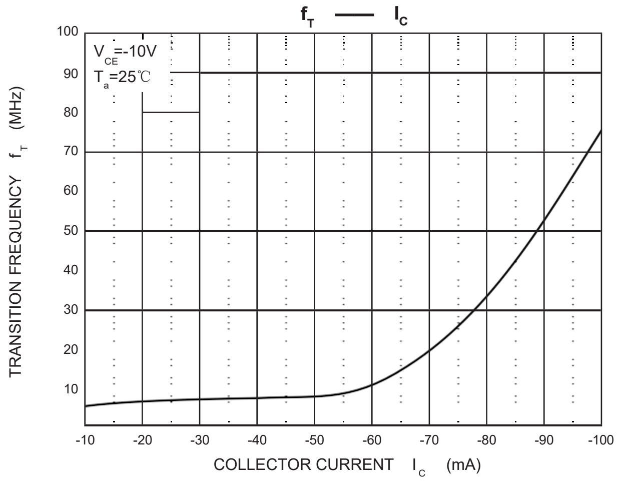

h_{FE} —— I_C

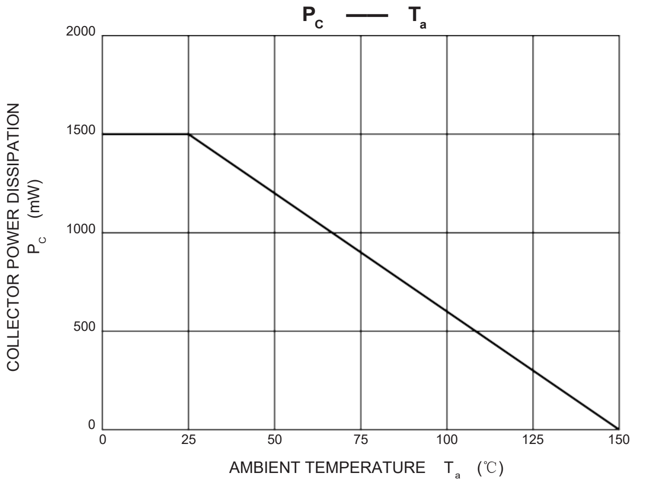

V_{CEsat} —— I_C


V_{BEsat} —— I_C


I_C —— V_{BE}


C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}


f_T —— I_C


P_C —— T_a