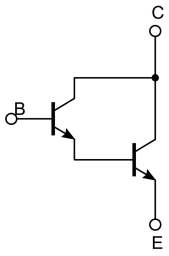
MJD122 TRANSISTOR（NPN）

FEATURES

- High DC Current Gain
- Electrically Similar to Popular TIP122
- Built-in a Damper Diode at E-C

TO-251



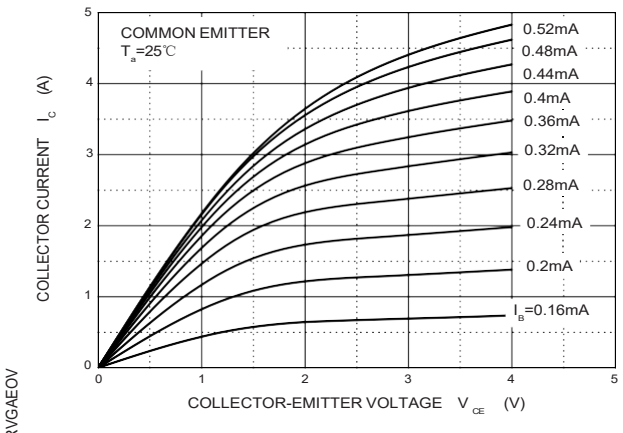
Schematic

MAXIMUM RATINGS (T_a=25℃unless otherwise noted)

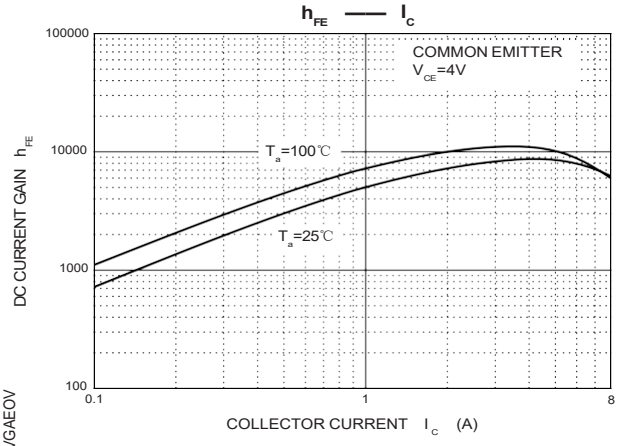
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	8	A
P_C	Collector Dissipation	1.5	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	Ic=1mA,I_E=0	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	Ic=30mA,I_B=0	100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=3mA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=100V,I_E=0			10	μA
Collector-emitter cut-off current	I_{CEO}	V_{CE}=50V,I_B=0			10	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			2	mA
DC current gain	$h_{FE(2)}$	V_{CE}=4V,I_C=4A	1000		12000	
	$h_{FE(3)}$	V_{CE}=4V,I_C=8A	100			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	I_C=4A,I_B=16mA			2	V
	$V_{CE(sat)2}$	I_C=8A,I_B=80mA			4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=8A,I_B=80mA			4.5	V
Base-emitter voltage*	V_{BE}	V_{CE}=4V,I_C=4A			2.8	V
Collector output capacitance	C_{ob}	V_{CB}=10V,I_E=0,f=0.1MHz			200	pF

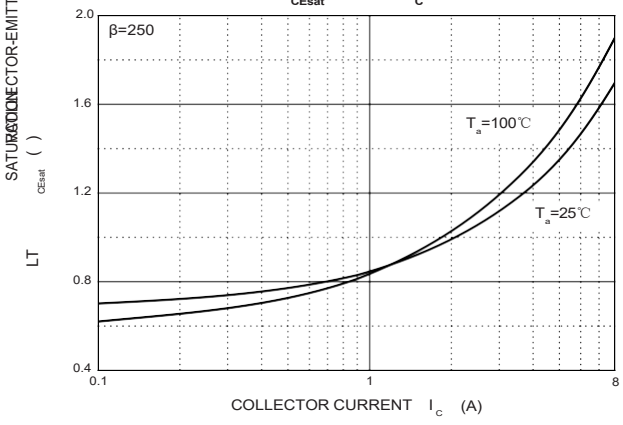
Static Characteristic



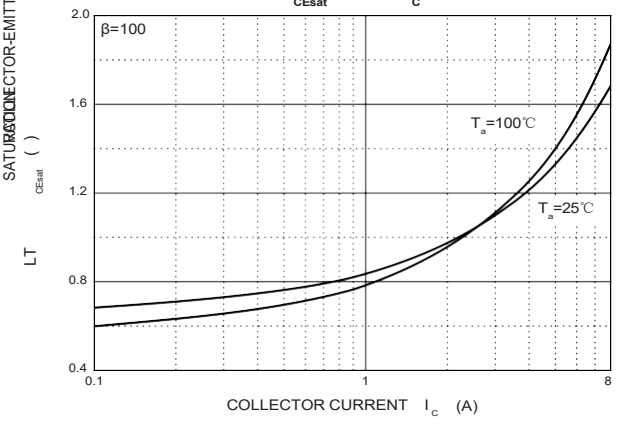
h_{FE} —— I_C



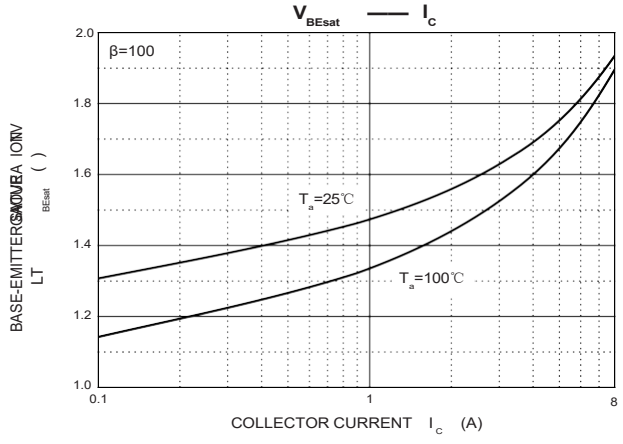
V_{CEsat} —— I_C



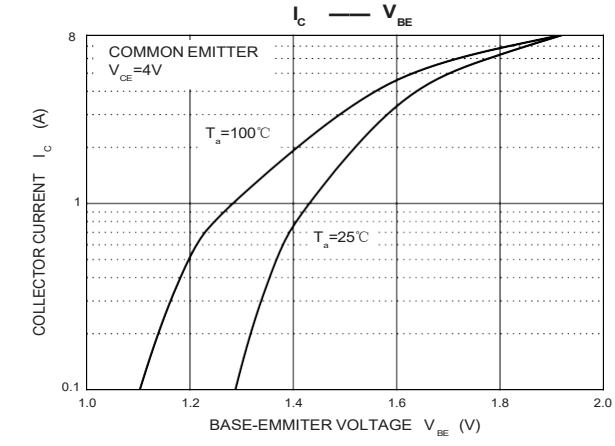
V_{CEsat} —— I_C



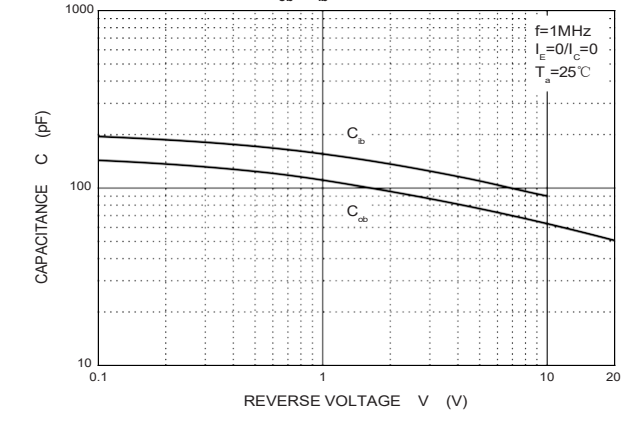
V_{BEsat} —— I_C



I_C —— V_{BE}



C_{ob}/ C_{ib} —— V_{CB}/ V_{EB}



P_c —— T_a