MJD127 TRANSISTOR (PNP)

TO-251

FEATURES

- High DC Current Gain
- Electrically Similar to Popular TIP127
- Built-in a Damper Diode at E-C

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 Power Dissipation	1.5	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

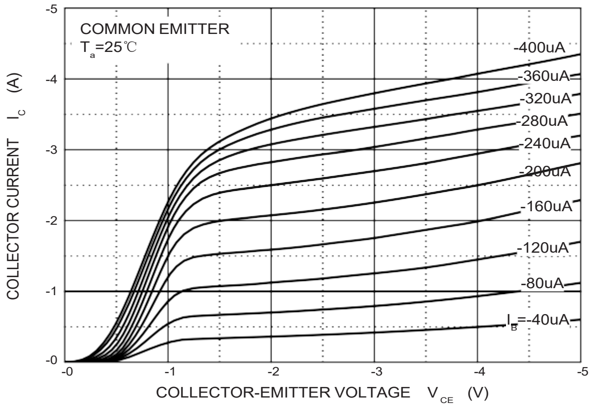
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-1mA,I_E=0	-100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-30mA,I_B=0	-100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-10mA,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	$h_{FE(1)}$	V_{CE}=-4V,I_C=-4A	1000		12000	
	$h_{FE(2)}$	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			300	pF

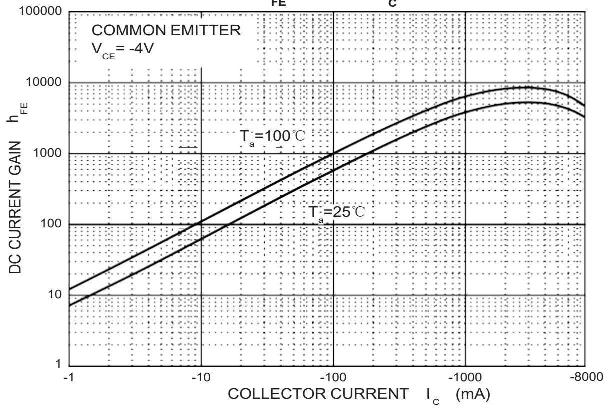
*Pulse Test: Pulse Width≤380μs, Duty Cycle≤2%

Typical Characteristics

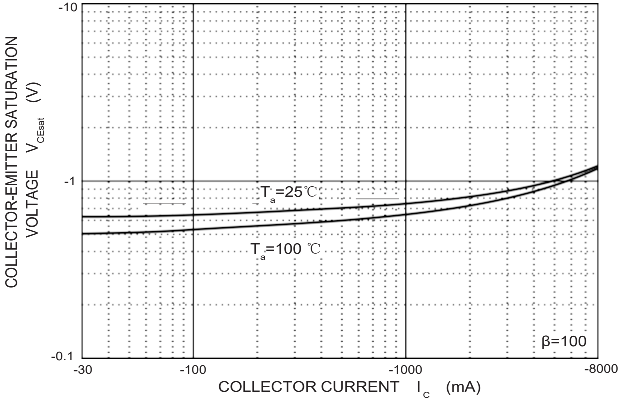
MJD127



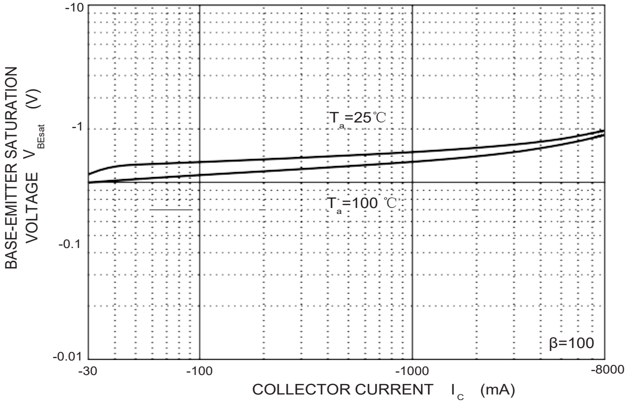
Static Characteristics



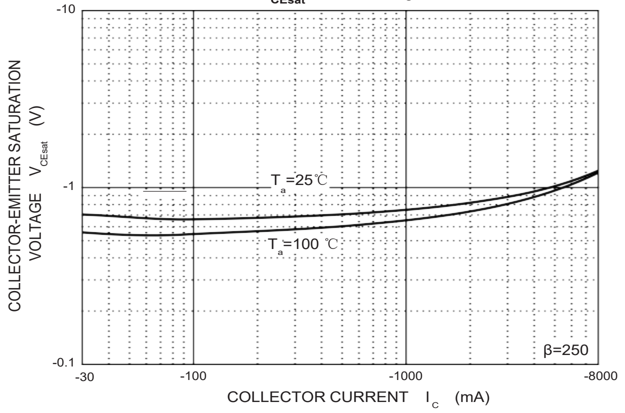
h_{FE} —— I_C



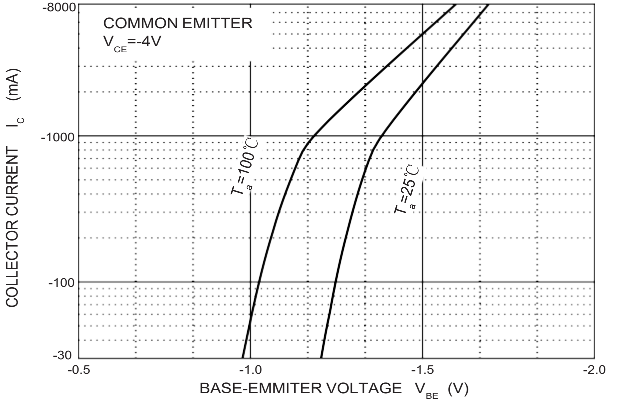
V_{CEsat} —— I_C



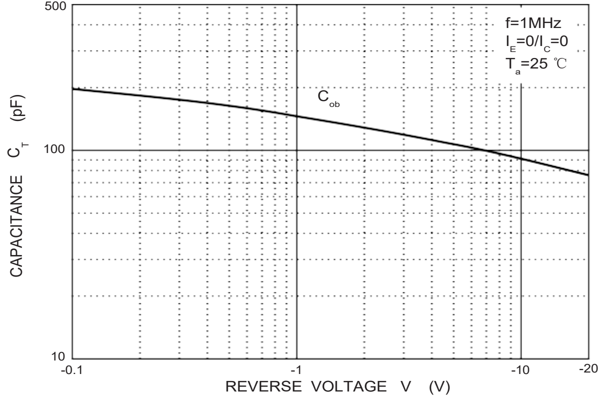
V_{BEsat} —— I_C



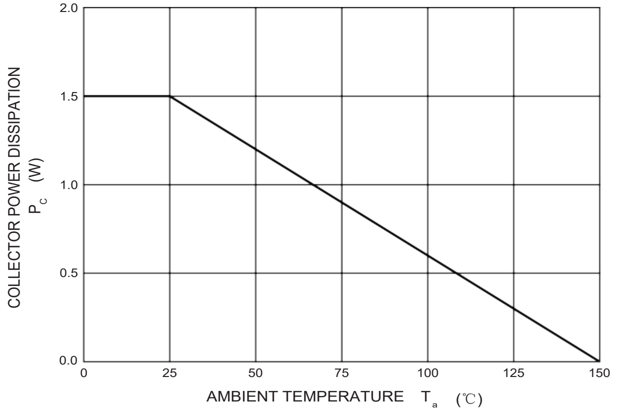
V_{CEsat} —— I_C



I_C —— V_{BE}



C_{ob} —— V_{CB}



P_C —— T_a