MJD42C TRANSISTOR (PNP)

TO-251

1.BASE

2.COLLECTOR

3.EMITTER

FEATURES

- Designed for General Purpose Amplifier and Low Speed Switching Applications.
- Lead Formed for Surface Mount Applications in Plastic Sleeves (No Suffix)
- Straight Lead Version in Plastic Sleeves (“–1” Suffix)
- Lead Formed Version in 16 mm Tape and Reel (“T4” Suffix)
- Electrically Similar to Popular TIP41 and TIP42 Series
- Monolithic Construction With Built–in Base–Emitter Resistors

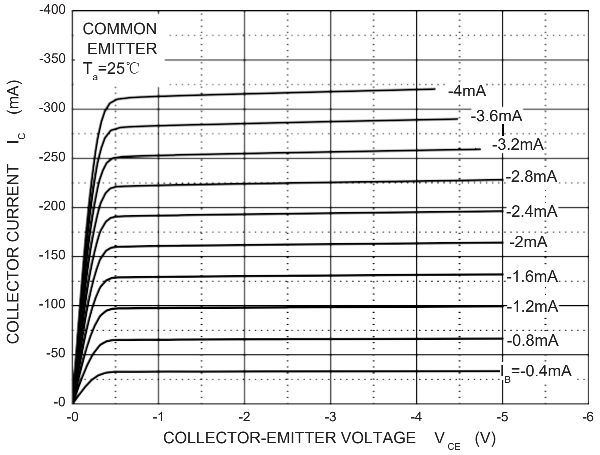
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

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	-6	A
P_C	Collector Power Dissipation	1.25	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

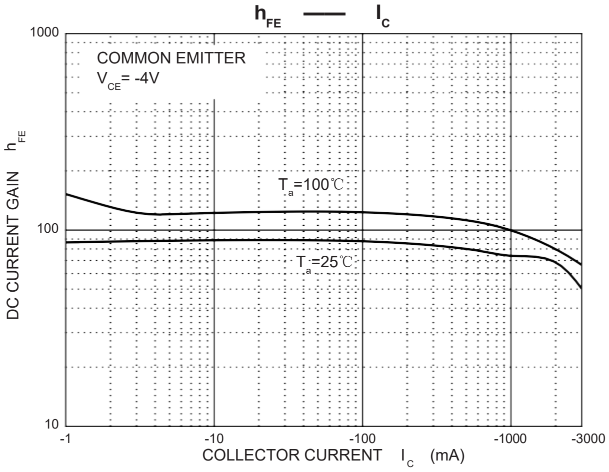
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA,I_E=0	-100			V
Collector-emitter breakdown voltage	$V_{CEO(sus)}$	I_C=-30mA,I_B=0	-100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA,I_C=0	-5			V
Collector cut-off current	I_{CEO}	V_{CB}=-60V,I_E=0			-50	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V I_C=0			-0.5	mA
DC current gain	$h_{FE(1)}$	V_{CE}=-4V I_C=-0.3A	30			
	$h_{FE(2)}$	V_{CE}=-4V,I_C=-3A	15		75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-6A,I_B=-0.6A			-1.5	V
Base-emitter voltage	V_{BE}	V_{CE}=-4V,I_C=-6A			-2	V
Transition frequency	f_T	V_{CE}=-10V,I_C=-500mA,f=1MHz	3			MHz

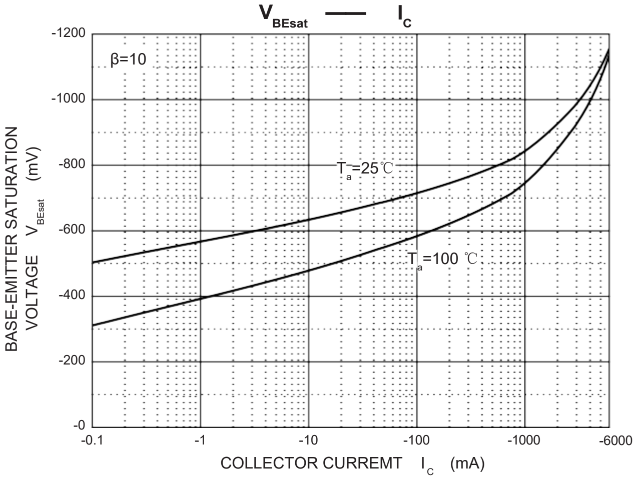
Static Characteristic



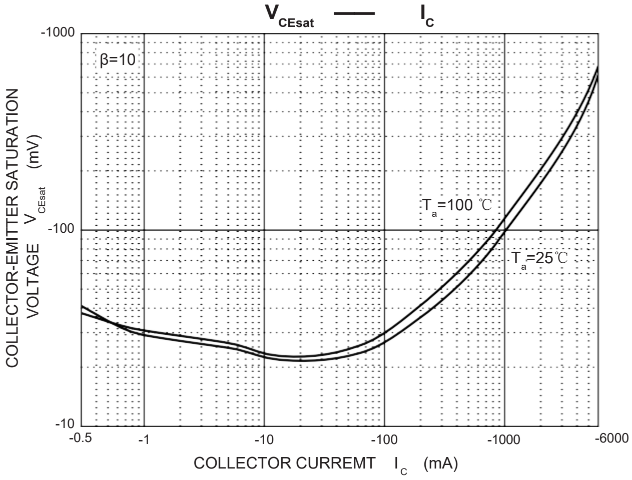
h_{FE} —— I_C



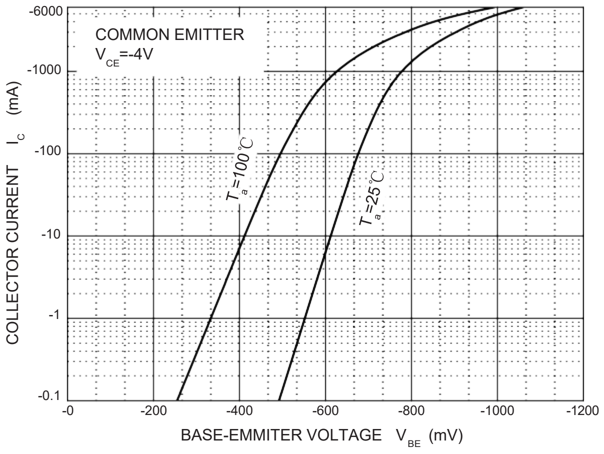
V_{BEsat} —— I_C



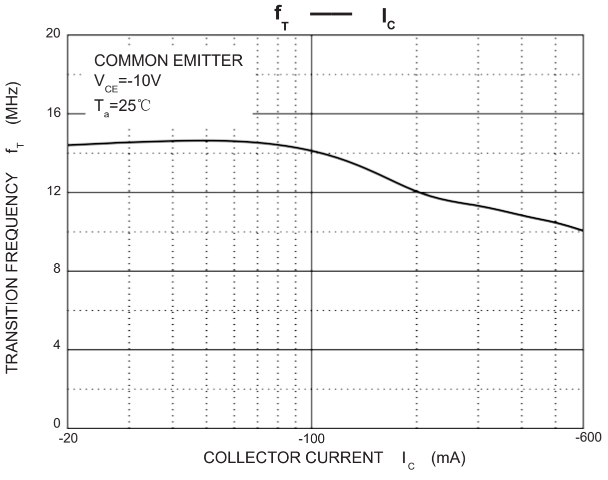
V_{CEsat} —— I_C



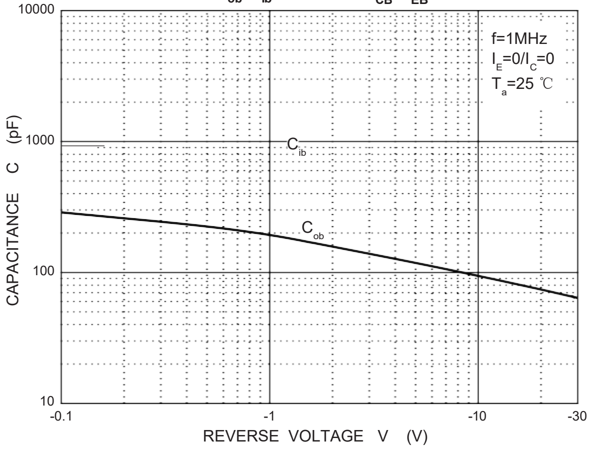
I_C —— V_{BE}



f_T —— I_C



C_{ob}/C_{ib} —— V_{CB}/V_{EB}



P_C —— T_a