MJE3055 TRANSISTOR (NPN)

TO-220C

FEATURES

- **General Purpose and Switching Applications**

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

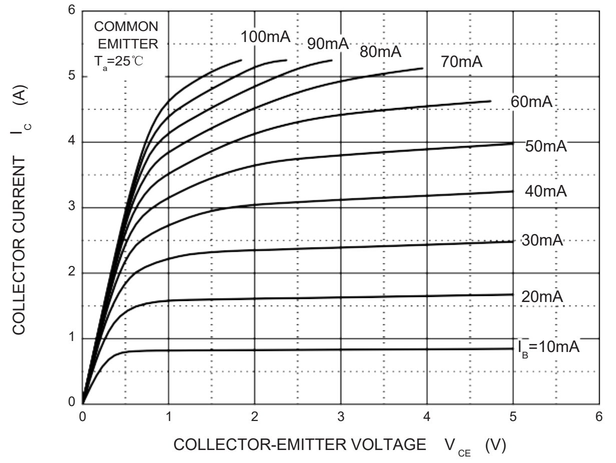
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	10	A
P_C	Collector Power Dissipation	2	W
T_j,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

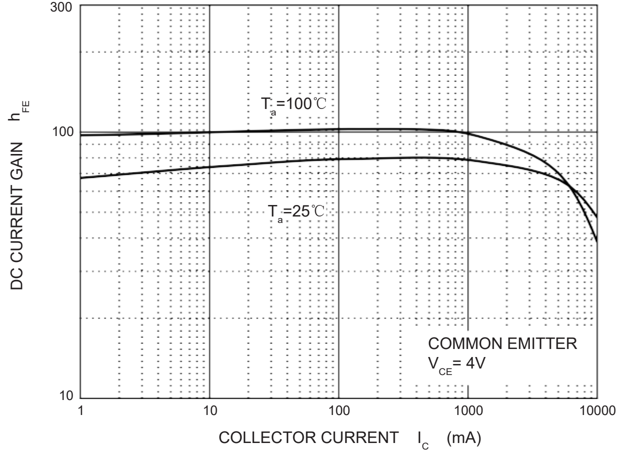
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=1mA, I_E=0	70			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=200mA, I_B=0	60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1mA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=70V, I_E=0			1	mA
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0			5	mA
DC current gain	$h_{FE(1)}$ *	V_{CE}=4V, I_C=4A	20		100	
	$h_{FE(2)}$ *	V_{CE}=4V, I_C=10A	5			
Collector-emitter saturation voltage	$V_{CE(sat)}$ *	I_C=4A, I_B=0.4A			1.1	V
	$V_{CE(sat)}$ *	I_C=10A, I_B=3.3A			8	V
Base-emitter voltage	V_{BE}*	V_{CE}=4V, I_C=4A			1.8	V
Transition frequency	f_T	V_{CE}=10V, I_C=0.5A	2			MHz

Note:*Pulse test: t_p≤300μS, δ≤0.02.

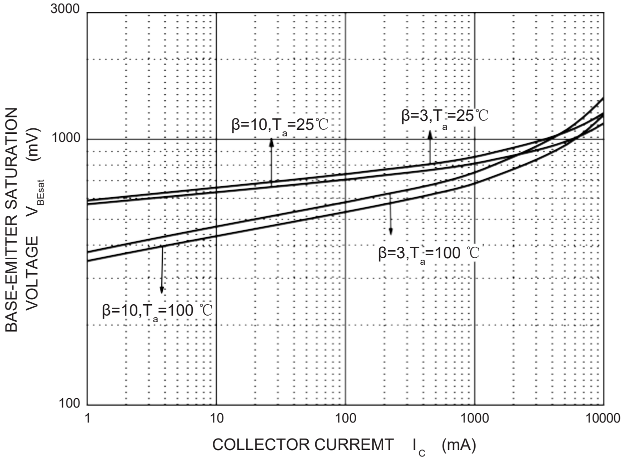
Static Characteristic



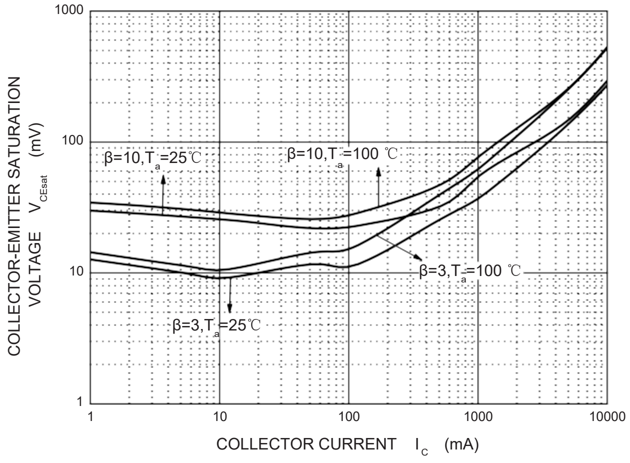
h_{FE} —— I_C



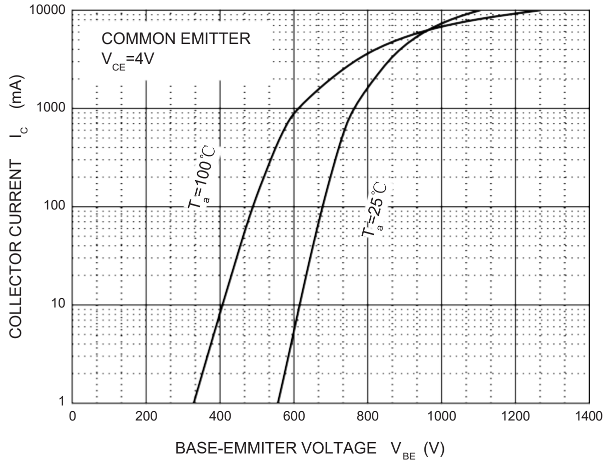
V_{BEsat} —— I_C



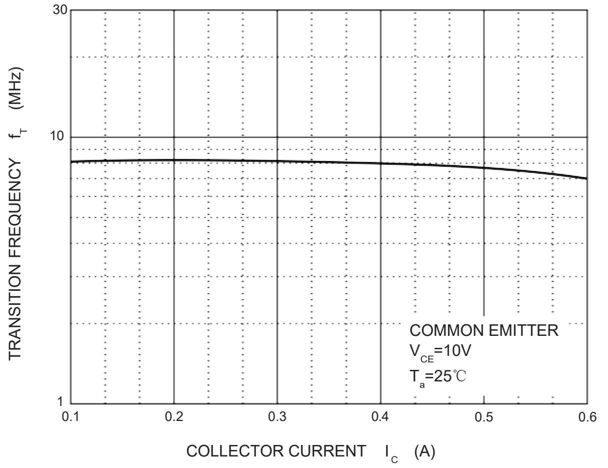
V_{CEsat} —— I_C



I_C —— V_{BE}



f_T —— I_C



P_C —— T_a