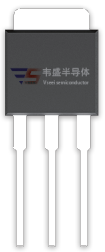
MJD32C TRANSISTOR (PNP)



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 TIP31 and TIP32 Series

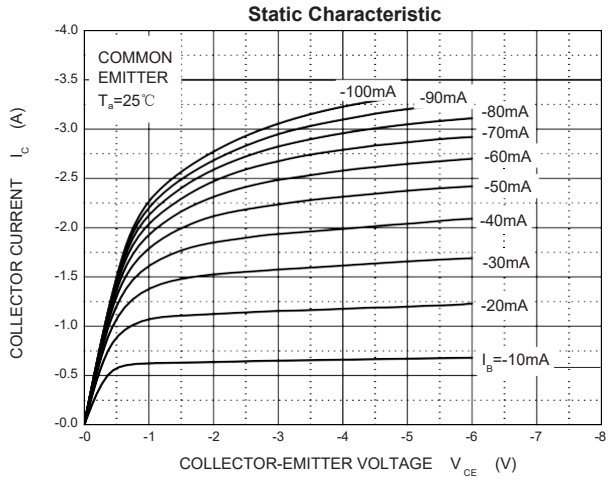
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

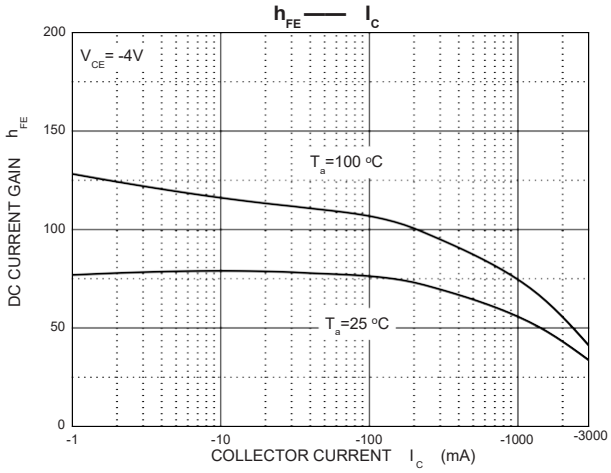
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-100	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-3	A
P_C	Collector Power Dissipation	1.25	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

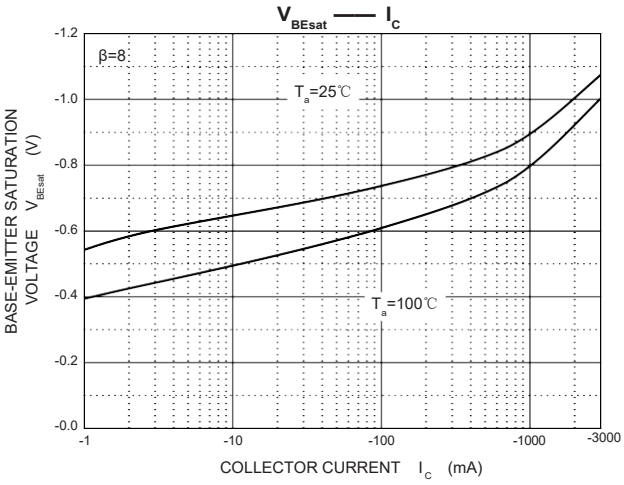
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

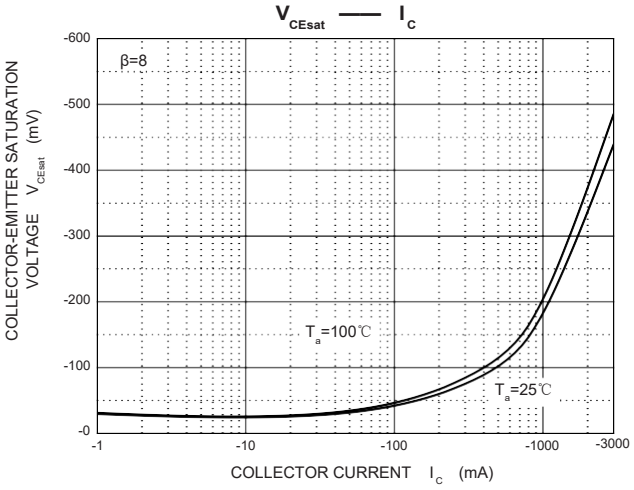
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -1mA, I_E=0	-100		V
Collector-emitter breakdown voltage *	$V_{CEO(sus)}$	I_C= -30mA, I_B=0	-100		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -1mA, I_C=0	-5		V
Collector cut-off current	I_{CES}	V_{CE}=-100V, V_{EB}=0		-20	μA
Collector cut-off current	I_{CEO}	V_{CE}= -60V, I_B= 0		-50	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0		-1	mA
DC current gain	$h_{FE(1)}$	V_{CE}= -4V, I_C=-1A	25		
	$h_{FE(2)}$	V_{CE}=-4 V, I_C=-3A	15	75	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-3A, I_B=-0.375A		-1.2	V
Base-emitter voltage	$V_{BE(on)}$	V_{CE}= -4V, I_C=-3A		-1.8	V
Transition frequency	f_T	V_{CE}=-10V , I_C=-0.5A,f_T=1kHz	3		MHz

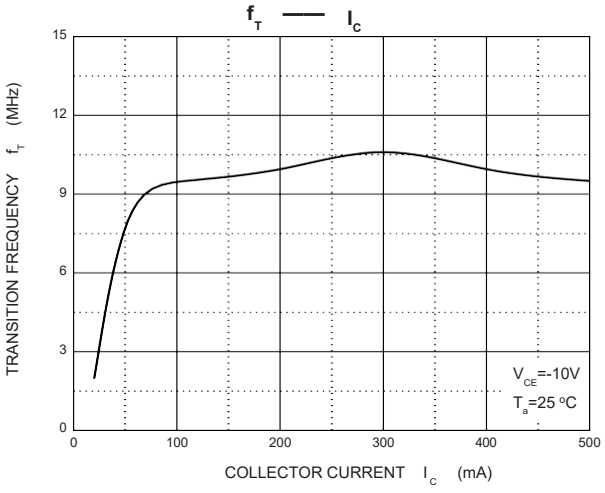
* Pulse Test: PW≤300μs, Duty Cycle≤2%.

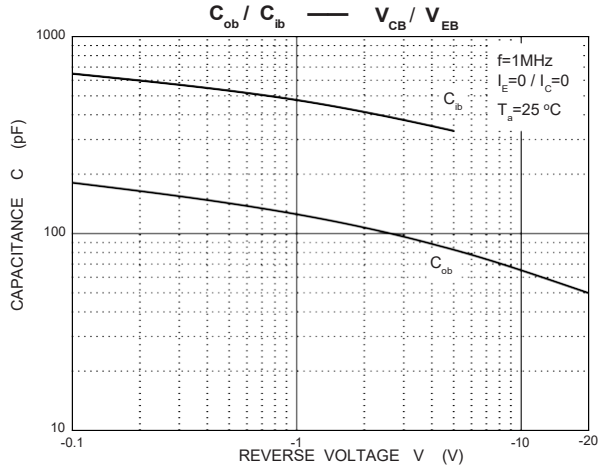

Static Characteristic
COMMON
EMITTER
Ta=25℃
-100mA
-90mA
-80mA
-70mA
-60mA
-50mA
-40mA
-30mA
-20mA
IB=-10mA
COLLECTOR CURRENT IC (A)
COLLECTOR-EMITTER VOLTAGE VCE (V)

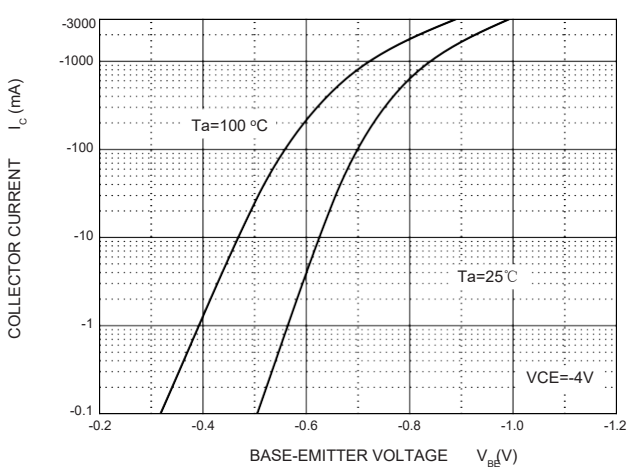

hFE —— IC
VCE= -4V
Ta=100 ºC
Ta=25 ºC
DC CURRENT GAIN hFE
COLLECTOR CURRENT IC (mA)

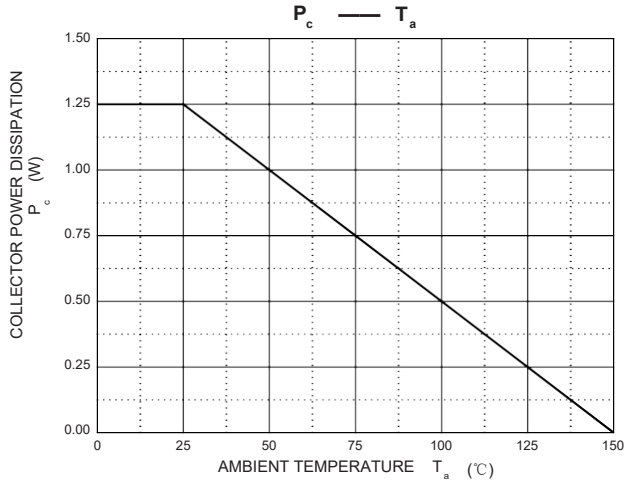

VBEsat —— IC
β=8
Ta=25℃
Ta=100℃
BASE-EMITTER SATURATION VOLTAGE VBEsat (V)
COLLECTOR CURRENT IC (mA)


VCEsat —— IC
β=8
Ta=100℃
Ta=25℃
COLLECTOR-EMITTER SATURATION VOLTAGE VCEsat (mV)
COLLECTOR CURRENT IC (mA)


fT —— IC
VCE=-10V
Ta=25 ºC
TRANSITION FREQUENCY fT (MHz)
COLLECTOR CURRENT IC (mA)


Cob / Cib —— VCB / VEB
f=1MHz
IE=0 / IC=0
Ta=25 ºC
Cib
Cob
CAPACITANCE C (pF)
REVERSE VOLTAGE V (V)


IC —— VBE
Ta=100 ºC
Ta=25℃
VCE=-4V
COLLECTOR CURRENT IC (mA)
BASE-EMITTER VOLTAGE VBE(V)


Pc —— Ta
COLLECTOR POWER DISSIPATION Pc (W)
AMBIENT TEMPERATURE Ta (℃)