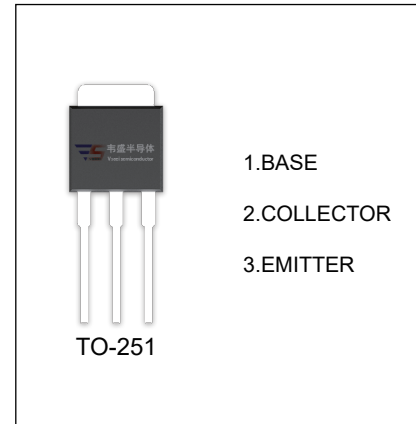


MJD31C TRANSISTOR (NPN)

FEATURES

- Designed for General Purpose Amplifier and Low Speed Switching
- 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°C unless otherwise noted)

Symbol	Parameter	Max	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	°C

ELECTRICAL CHARACTERISTICS (T_a= 25°C 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%.

