



Micro Commercial Components

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MJD122

Silicon NPN epitaxial planer Transistors

Features

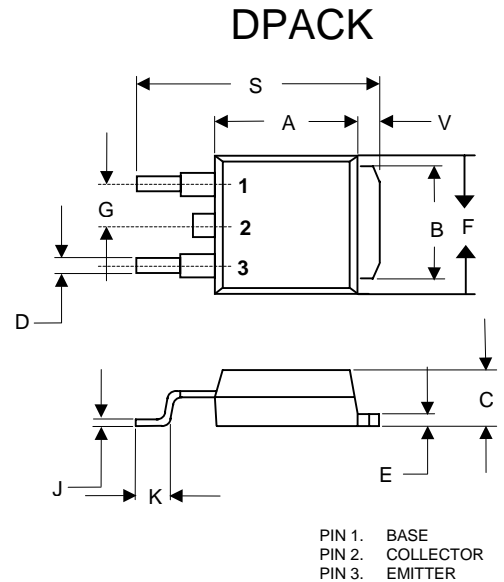
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information)
- Case Material:Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- High DC Current Gain
- Electrically similar to popular TIP 122
- Built-in a damper diode at E-C
- Maximum Thermal Resistance: 83.3°C/W Junction to Ambient

Maximum Ratings @ 25°C Unless Otherwise Specified

Symbol	Rating	Rating	Unit
V _{CEO}	Collector-Emitter Voltage	100	V
V _{CBO}	Collector-Base Voltage	100	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current-Continuous	8	A
P _C	Collector Dissipation	1.5	W
T _J	Operating Junction Temperature	150	°C
T _{STG}	Storage Temperature	-55 to +150	°C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage (I _C =30mA, I _B =0)	100	---	---	Vdc
V _{(BR)CBO}	Collector-Base Breakdown Voltage (I _C =1mA, I _E =0)	100	---	---	Vdc
V _{(BR)EBO}	Collector-Emitter Breakdown Voltage (I _E =3mA, I _C =0)	5	---	---	Vdc
I _{CBO}	Collector Cutoff Current (V _{CB} =100Vdc, I _E =0)	---	---	10	nAdc
I _{CEO}	Collector emitter cutoff Current (V _{CE} =50Vdc, I _E =0)	---	---	10	nAdc
I _{EBO}	Emitter Cutoff Current (V _{EB} =5Vdc, I _C =0)	---	---	2	nAdc
h _{FE}	DC Current Gain (I _C =-4Adc, V _{CE} =-4Vdc) (I _C =-8Adc, V _{CE} =-4Vdc)	1000 100	---	12000	
V _{CE(sat)}	Collector-Emitter Saturation Voltage (I _C =4Adc, I _B =16mA) (I _C =8Adc, I _B =80mA)	---	---	2 4	Vdc
V _{BE(sat)}	Base-Emitter Saturation Voltage (I _C =8Adc, I _B =80mA)	---	---	4.5	Vdc
V _{BE}	Base-Emitter Saturation Voltage (I _C =4Adc, V _{CE} =4Vdc)	---	---	2.8	Vdc
C _{ob}	Output Capacitance (V _{CB} =10Vdc, f=0.1MHz, I _E =0)	---	---	200	pF



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	0.235	0.245	5.97	6.22	
B	0.205	0.215	5.21	5.46	
C	0.086	0.094	2.19	2.38	
D	0.025	0.035	0.64	0.89	
E	0.035	0.045	0.99	1.14	
F	0.250	0.265	6.35	6.73	
G	0.090		2.28		
J	0.018	0.023	0.48	0.58	
K	0.020	---	0.51	---	
S	0.370	0.410	9.40	10.42	
V	0.035	0.050	0.88	1.27	

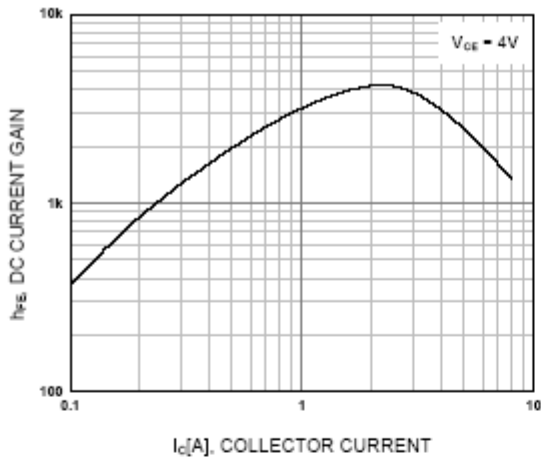


Figure 1. DC current Gain

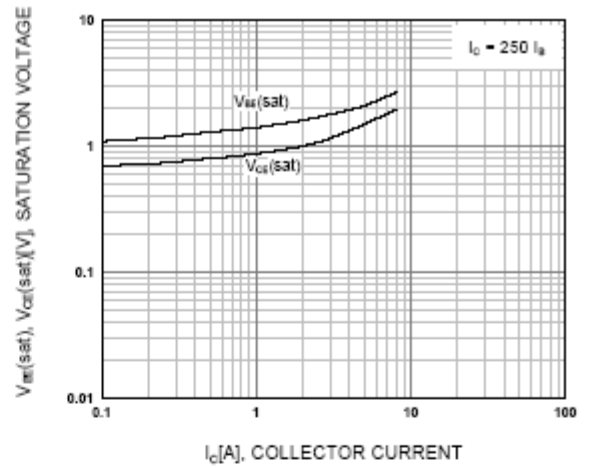


Figure 2. Base-Emitter Saturation Voltage
Collector-Emitter Saturation Voltage

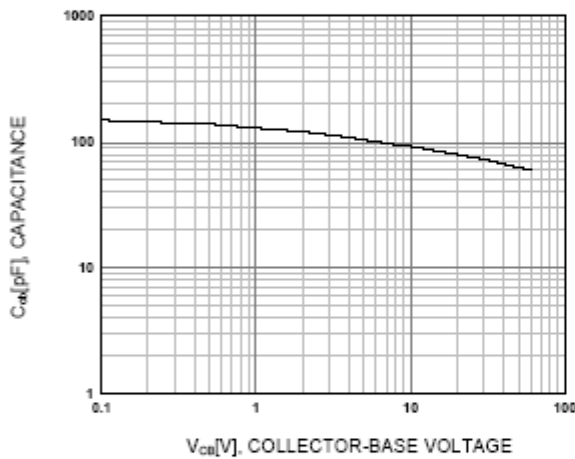


Figure 3. Collector Output Capacitance

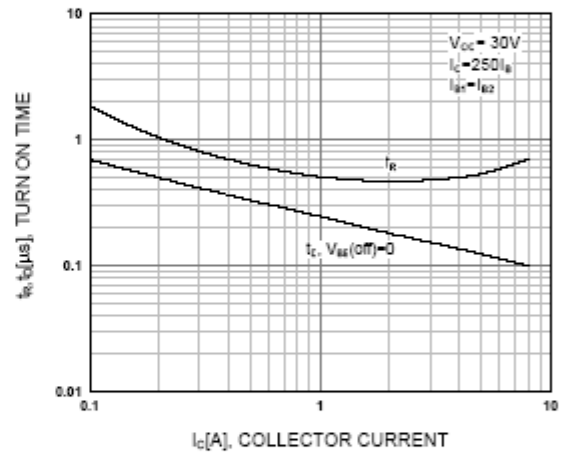


Figure 4. Turn On Time

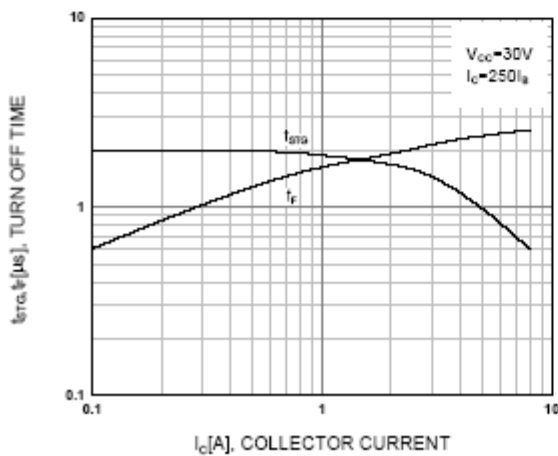


Figure 5. Turn Off Time

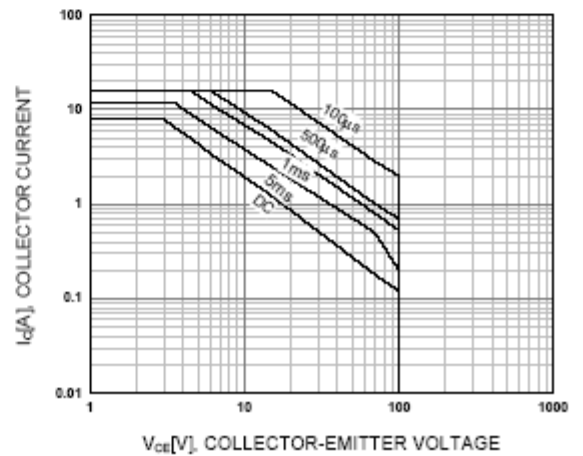


Figure 6. Safe Operating Area



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Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;2.5Kpcs/Reel

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