



Micro Commercial Components 20736 Marilla Street Chatsworth **Micro Commercial Components** 

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**MJD127** 

- Halogen free available upon request by adding suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix designates RoHS Compliant. See ordering information) Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High DC Current Gain
- Electrically similar to popular TIP 127
- 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
Ic	Collector Current-Continuous	-8	Α
Pc	Collector Dissipation	1.5	W
TJ	Operating Junction Temperature	150	$^{\circ}\mathbb{C}$
Tsta	Storage Temperature	-55 to +150	°C

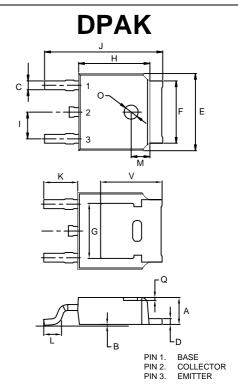
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Тур	Max	Units
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =-30mAdc, I <sub>B</sub> =0)	-100	-		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage (I <sub>C</sub> =-1mAdc, I <sub>E</sub> =0)	-100			Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage (I <sub>E</sub> =-1mAdc, I <sub>C</sub> =0)	-5			Vdc
I <sub>CBO</sub>	Collector Cutoff Current (V <sub>CB</sub> =-100Vdc, I <sub>E</sub> =0)			-10	nAdc
I <sub>CEX</sub>	Collector emitter cutoff Current (V <sub>CB</sub> =-100Vdc, V <sub>BE(off)</sub> =1.5V)			-10	nAdc
I <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =-5Vdc, I <sub>C</sub> =0)			-2	nAdc
h <sub>FE</sub>	DC Current Gain (I <sub>C</sub> =-4Adc, V <sub>CE</sub> =-4Vdc) (I <sub>C</sub> =-8Adc, V <sub>CE</sub> =-4Vdc)	1000 100		12000	
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage (I <sub>C</sub> =-4Adc, I <sub>B</sub> =-16mAdc) (note 1)			-2	Vdc
	(I <sub>C</sub> =-8Adc, I <sub>B</sub> =-80mAdc)(note 1)			-4	Vdc
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage (I <sub>C</sub> =-8Adc, I <sub>B</sub> =-80mAdc) (note 1)			-4.5	Vdc
$V_{BE}$	Base-Emitter Saturation Voltage (I <sub>C</sub> =-4Adc, V <sub>CE</sub> =-4Vdc ) (note 1)			-2.8	Vdc
$C_{ob}$	Output Capacitance (V <sub>CB</sub> =-10Vdc, f=0.1MHz, I <sub>E</sub> =0)			300	pF

### Note:

1.Pulse Test: Pulse Width≤380µs, Duty Cycle≤2%

# Silicon PNP epitaxial planer **Transistors**



DIMENSIONS					
	INCI	INCHES		MM	
DIM	MIN	MAX	MIN	MAX	NOTE
Α	0.087	0.094	2.20	2.40	
В	0.000	0.005	0.00	0.13	
С	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
Е	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		
Н	0.236	0.244	6.00	6.20	
ı	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.	90	
L	0.055	0.067	1.40	1.70	
М	0.063		1.	60	
0	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
٧	0.211		5.	35	

# **MJD127**



**Micro Commercial Components** 

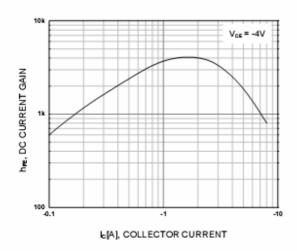


Figure 1. DC current Gain

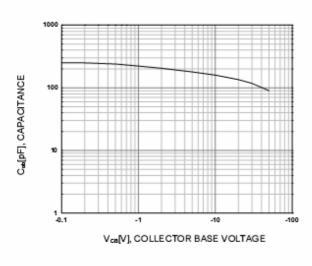


Figure 3. Collector Output Capacitance

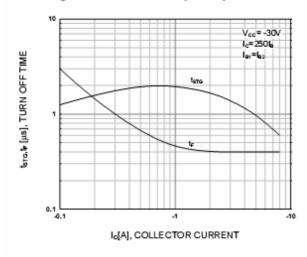


Figure 5. Turn Off Time

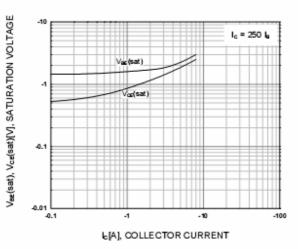


Figure 2. Base-Emitter Saturation Voltage Collector-Emitter Saturation Voltage

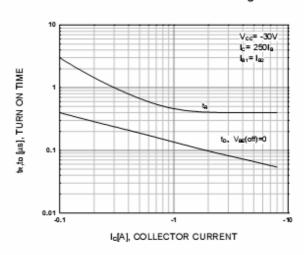


Figure 4. Turn On Time

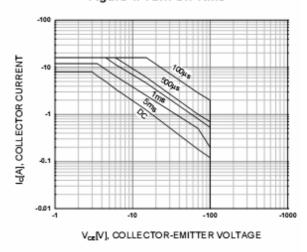


Figure 6. Safe Operating Area



### **Micro Commercial Components**

## **Ordering Information:**

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

Note: Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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