

**Micro Commercial Components** 



**Micro Commercial Components** 20736 Marilla Street Chatsworth CA 91311 Phone: (818) 701-4933 (818) 701-4939 Fax:

### Features

- 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 <sub>CBO</sub>	Collector-Base Voltage	-100	V	
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V	
Ι <sub>C</sub>	Collector Current-Continuous	-8	А	
Pc	Collector Dissipation	1.5	W	
TJ	Operating Junction Temperature	150	°C	
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C	

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

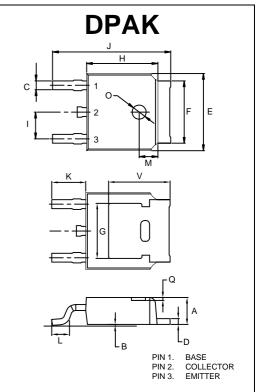
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Symbol	Parameter	Min	Тур	Max	Units
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage $(I_C=-30 \text{ mAdc}, I_B=0)$	-100			Vdc
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage (I <sub>C</sub> =-1mAdc, I <sub>E</sub> =0)	-100			Vdc
$V_{(BR)EBO}$	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 $(I_{C}=-4Adc, I_{B}=-16mAdc)$ (note 1)			-2	Vdc
	$(I_{c}=-8Adc, I_{B}=-80mAdc)(note 1)$			-4	Vdc
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage $(I_{C}=-8Adc, I_{B}=-80mAdc)$ (note 1)			-4.5	Vdc
V <sub>BE</sub>	Base-Emitter Saturation Voltage (Ic=-4Adc, VcE=-4Vdc) (note 1)			-2.8	Vdc
C <sub>ob</sub>	Output Capacitance (V <sub>CB</sub> =-10Vdc, f=0.1MHz, I <sub>E</sub> =0)			300	pF

#### Note:

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

# **MJD127**

## Silicon **PNP** epitaxial planer **Transistors**



	INCHES MM		INCHES		1M	
DIM	MIN	MAX	MIN	MAX	NOTE	
А	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		
E	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		
1	0.086	0.094	2.18	2.39		
J	0.386	0.409	9.80	10.40		
К	0.1	14	2.	90		
L	0.055	0.067	1.40	1.70		
М	0.0	63	1.	60		
0	0.043	0.051	1.10	1.30		
Q	0.000	0.012	0.00	0.30		
V	0.2	11	5.	35		

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## MJD127



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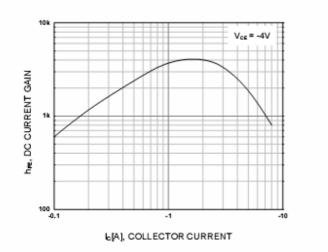


Figure 1. DC current Gain

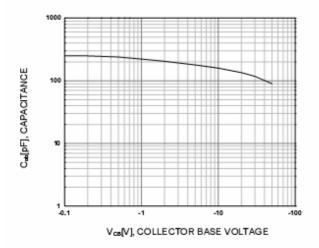


Figure 3. Collector Output Capacitance

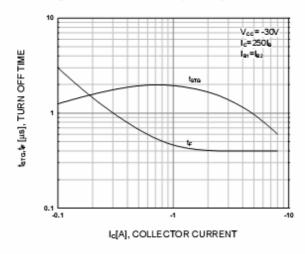
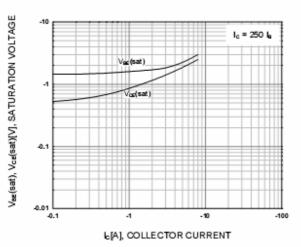
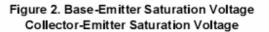


Figure 5. Turn Off Time





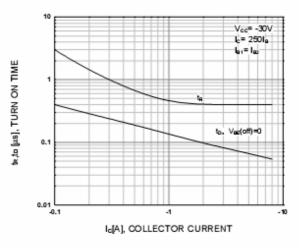
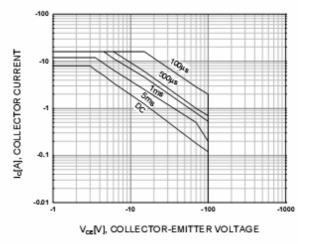


Figure 4. Turn On Time





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#### **Revision:** B



### **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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