

Pb

**Micro Commercial Components** 

Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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# **Features**

- Low Collector Saturation Voltage
- · Execllent current-to-gain characteristics
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

# **Maximum Ratings**

Symbol	Rating	Rating	Unit
$V_{CEO}$	Collector-Emitter Voltage	-32	V
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-5.0	V
Ic	Collector Current	-2.0	Α
Pc	Collector power dissipation	1.5	W
TJ	Junction Temperature	150	$^{\circ}\!\mathbb{C}$
T <sub>STG</sub>	Storage Temperature	-55 to +150	$^{\circ}\mathbb{C}$

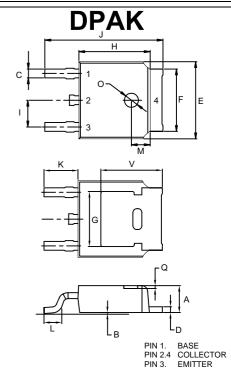
### Electrical Characteristics @ $25^{\circ}$ Unless Otherwise Specified

O	D	B.41:	T	NA	11-24-
Symbol	Parameter	Min	Тур	Max	Units
$V_{(BR)CBO}$	Collector-base Breakdown Voltage (I <sub>C</sub> =-50uAdc, I <sub>E</sub> =0)	-40			Vdc
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (I <sub>C</sub> =-1mAdc, I <sub>B</sub> =0)	-32			Vdc
$V_{(BR)EBO}$	Emitter-base Breakdown Voltage (I <sub>E</sub> =-50uAdc, I <sub>C</sub> =0)	-5			Vdc
І <sub>сво</sub>	Collector-Base Cutoff Current (V <sub>CB</sub> =-20Vdc,I <sub>E</sub> =0)			-1.0	uAdc
I <sub>EBO</sub>	Emitter-Base Cutoff Current (V <sub>EB</sub> =-4Vdc, I <sub>C</sub> =0)			-1.0	uAdc
h <sub>FE(1)</sub>	DC Current Gain (I <sub>C</sub> =-0.5Adc, V <sub>CE</sub> =-3.0Vdc)	82		390	
$V_{\text{CE(sat)}}$	Collector-Emitter Saturation Voltage (I <sub>C</sub> =-2Adc, I <sub>B</sub> =-200mAdc)			-0.8	Vdc
f⊤	Transition Frequency (V <sub>CE</sub> =-5Vdc, I <sub>C</sub> =-500mAdc,f=30MHz)		100		MHz
$C_ob$	Collector output capacitance (V <sub>CB</sub> =-10Vdc, I <sub>E</sub> =0,f=1.0MHz)		50		pF

### **CLASSIFICATION OF H**FE (1)

Rank	Р	Q	R
Range	82-180	120-270	180-390

# PNP Silicon Epitaxial Transistors



DIMENSIONS					
	INC		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	
- 1	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	
M	0.063		1.60		
0	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		

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7 -1000 To=100°C V V v -3V V 25°C V 40°C V V 40°C V

Fig.1 Grounded emitter propagation characteristics

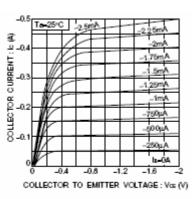


Fig.2 Grounded emitter output characteristics

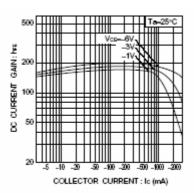


Fig.3 DC current gain vs. collector current (1)

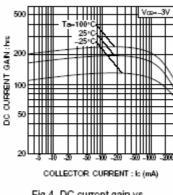


Fig.4 DC current gain vs. collector current ( II )

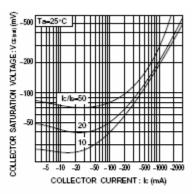


Fig.5 Collector-emitter saturation voltage vs. collector current ( I )

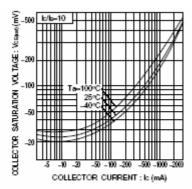


Fig.6 Collector-emitter saturation voltage vs. collector current ( II )

## 2SB1182



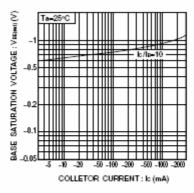


Fig.7 Base-emitter saturation voltage vs. collector current

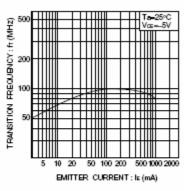


Fig.8 Gain bandwidth product vs. emitter current

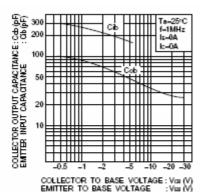


Fig.9 Collector output capacitance vs. collector-base voltage Emitter input capacitance vs. emitter-base voltage

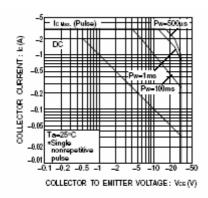


Fig.11 Safe operation area (2SB1182)



#### **Micro Commercial Components**

### Ordering Information:

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

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