



Micro Commercial Components 20736 Marilla Street Chatsworth CA 91311

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# **Features**

- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisure Sensitivity Level 1
- Capable of 1.25Watts of Power Dissipation.
- Collector-current 3.0A
- Collector-base Voltage 40V
- Operating and storage junction temperature range: -55°C to +150°C
- Halogen free available upon request by adding suffix "-HF"

# Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	IVIIN	wax	Units
OFF CHARACTERISTICS				
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage (b=10mAdc, b=0)	30		Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $l_c=100\mu$ Adc, $l_c=0$ )	40		Vdc
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage (½=100µAdc, I <sub>C</sub> =0)	6.0		Adc
Сво	Collector Cutoff Current (V <sub>CB</sub> =40Vdc, I <sub>E</sub> =0)		1.0	μAdc
I <sub>CEO</sub>	Collector Cutoff Current (V <sub>CE</sub> =30Vdc, <sub>b</sub> =0)		1.0	μAdc
l <sub>EBO</sub>	Emitter Cutoff Current (V <sub>EB</sub> =6.0Vdc, $\xi$ =0)		1.0	μAdc

## **ON CHARACTERISTICS**

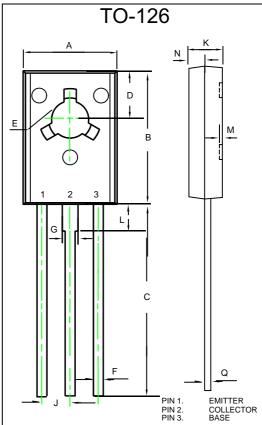
h <sub>FE-1</sub>	DC Current Gain	60	400	
	(b=1.0Adc, V <sub>CE</sub> =2.0Vdc)			
h <sub>FE-2</sub>	DC Current Gain	32		
	(l <sub>c</sub> =100mAdc, V <sub>CE</sub> =2.0Vdc)			
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage		0.5	Vdc
	(l <sub>c</sub> =2.0Adc, l <sub>B</sub> =0.2Adc)			
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		2.0	Vdc
	(l <sub>c</sub> =2.0Adc, l <sub>B</sub> =0.2Adc)			
fT	Transition Frequency	50		MHz
	$(V_{CE}=5.0Vdc, I_{C}=0.1Adc, f=10MHz)$			

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CLASSIFICATION OF IFE				
Rank	R	0	Υ	GR
Range	60-120	100-200	160-320	200-400

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

# NPN Silicon Plastic-Encapsulate Transistor



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
Α	0.291	0.307	7.40	7.80	
В	0.417	0.433	10.60	11.00	
С	0.602	0.618	15.30	15.70	
D	0.154	0.161	3.90	4.10	
E	0.118	0.126	3.00	3.20	
F	0.026	0.034	0.66	0.86	
G	0.046	0.054	1.17	1.37	
J	0.090TYP		2.29	0TYP	
K	0.098	0.114	2.50	2.90	
L	0.083	0.091	2.10	2.30	
M	0.000	0.012	0.00	0.30	
N	0.043	0.059	1.10	1.50	
Q	0.018	0.024	0.45	0.60	

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# **Ordering Information:**

Device	Packing
Part Number-BP	Bulk; 1Kpcs/Box

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

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