



Micro Commercial Components

Micro Commercial Components  
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# 2SB1366F-O 2SB1366F-Y

## PNP Silicon Power Transistors

### Features

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Low  $V_{CE(SAT)}$ :  $V_{CE(SAT)} = -1.0V(\text{Max.})(I_C/I_B = -2A/-0.2A)$
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"

### Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum

Symbol	Rating	Rating	Unit
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$V_{CBO}$	Collector-Base Voltage	-60	V
$V_{EBO}$	Emitter-Base Voltage	-7.0	V
$I_C$	Collector Current	-3.0	A
$P_C$	Collector power dissipation $T_A = 25^\circ\text{C}$	2.0	W
$T_J$	Junction Temperature	-55 to +150	$^\circ\text{C}$
$T_{STG}$	Storage Temperature	-55 to +150	$^\circ\text{C}$

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

Symbol	Parameter	Min	Typ	Max	Units
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#### OFF CHARACTERISTICS

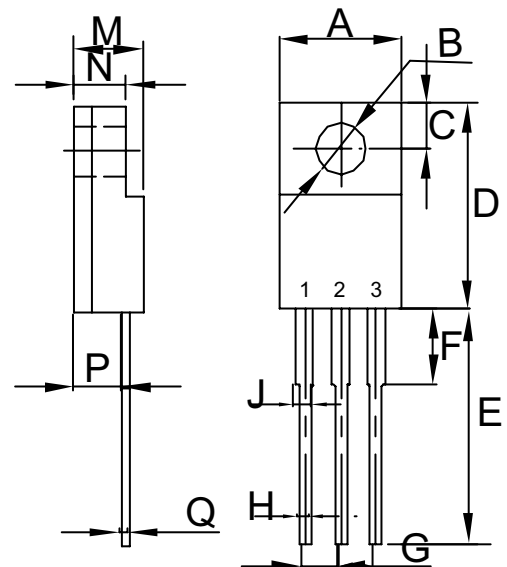
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ( $I_C = -50\text{mA}$ , $I_B = 0$ )	-60	---	---	Vdc
$I_{CBO}$	Collector-Base Cutoff Current ( $V_{CB} = -60\text{Vdc}$ , $I_E = 0$ )	---	---	-100	$\mu\text{Adc}$
$I_{EBO}$	Emitter-Base Cutoff Current ( $V_{EB} = -7.0\text{Vdc}$ , $I_C = 0$ )	---	---	-100	$\mu\text{Adc}$

#### ON CHARACTERISTICS

$h_{FE(1)}$	Forward Current Transfer ratio ( $I_C = -0.5\text{Adc}$ , $V_{CE} = -5.0\text{Vdc}$ )	60	---	200	---
$h_{FE(2)}$	Forward Current Transfer ratio ( $I_C = -3.0\text{Adc}$ , $V_{CE} = -5.0\text{Vdc}$ )	20	---	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C = -2.0\text{Adc}$ , $I_B = -0.2\text{Adc}$ )	---	---	-1.0	Vdc
$V_{BE}$	Base-Emitter Saturation Voltage ( $I_C = -0.5\text{Adc}$ , $V_{CE} = -5.0\text{Vdc}$ )	---	---	-1.0	Vdc
$f_T$	Transition Frequency ( $V_{CE} = -5.0\text{Vdc}$ , $I_C = -0.5\text{Adc}$ )	---	9.0	---	MHz
$C_{ob}$	Collector Output Capacitance ( $V_{CB} = -10\text{Vdc}$ , $I_E = 0$ , $f = 1.0\text{MHz}$ )	---	150	---	pF
$t_f$	Fall time ( $I_C = -2\text{Adc}$ , $I_{B1} = -I_{B2} = -0.2\text{Adc}$ , $V_{CC} = -30\text{Vdc}$ )	---	0.4	---	$\mu\text{s}$
$t_s$	Storage time ( $I_C = -2\text{Adc}$ , $I_{B1} = -I_{B2} = -0.2\text{Adc}$ , $V_{CC} = -30\text{Vdc}$ )	---	1.7	---	$\mu\text{s}$

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.  
2.  $h_{FE}$  Range: O: 60~120, Y: 100~200

### TO-220F



PIN 1. BASE  
PIN 2. COLLECTOR  
PIN 3. EMITTER

DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.392	.408	9.96	10.36	
B	.138		3.50		$\phi$
C	.106		2.70		
D	.583	.598	14.80	15.20	
E	.520		13.20		
F	.142	.158	3.60	4.00	
G	.100		2.54		
H	.020	.030	0.50	0.75	
J	.043	.053	1.10	1.35	
M	.169	.185	4.30	4.70	
N	.110	.126	2.80	3.20	
P	.098	.114	2.50	2.90	
Q	.020	.030	0.50	0.75	



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### Ordering Information :

Device	Packing
Part Number-BP	Bulk;5Kpcs/Box

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

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