



Micro Commercial Components

Micro Commercial Components  
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**2N5321**

## Features

- $V_{CE0}=50V$
- $I_{CM}=2A$
- $P_{tot}=1.0W$  ( $T_{amb}=25^{\circ}C$ )
- $R_{th(jc)max}=17.5^{\circ}C/W$ ,  $R_{th(ja)max} = 175^{\circ}C/W$
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)

## Maximum Ratings

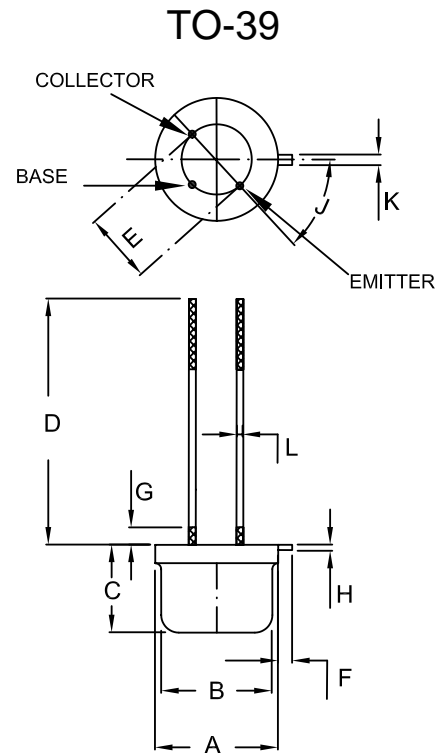
Symbol	Rating	Rating	Unit
$V_{CE0}$	Collector-Emitter Voltage( $I_B=0$ )	50	V
$V_{CBO}$	Collector-Base Voltage( $I_E=0$ )	75	V
$V_{EBO}$	Emitter-Base Voltage( $I_C=0$ )	5.0	V
$V_{CEV}$	Collector-Emitter Voltage( $V_{BE}=1.5V$ )	75	V
$I_C$	Collector Current	1200	mA
$T_J$	Operating Junction Temperature	-65 to +200	$^{\circ}C$
$T_{STG}$	Storage Temperature	-65 to +200	$^{\circ}C$

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
<b>OFF CHARACTERISTICS</b>				
$V_{(BR)CEO}^*$	Collector-Emitter Breakdown Voltage ( $I_C=10mA$ , $I_B=0$ )	50	---	V
$V_{(BR)CEV}$	Collector-Emitter Breakdown Voltage ( $I_C=0.1mA$ , $V_{BE}=1.5V$ )	75	---	V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage ( $I_E=0.1mA$ , $I_C=0$ )	5.0	---	V
$V_{BE(Notes\ 2)}$	Base-Emitter Voltage ( $I_C=500mA$ , $V_{CE}=4V$ )	---	1.4	V
$I_{CBO}$	Collector-Base Cut-off Current ( $V_{CB}=60V$ , $I_E=0$ )	---	5.0	$\mu A$
$I_{EBO}$	Emitter-Base Cut-off Current ( $V_{EB}=4.0V$ , $I_C=0$ )	---	0.5TYP	$\mu A$
<b>ON CHARACTERISTICS</b>				
$h_{FE}^*$	DC CURRENT GAIN ( $I_C=0.5A$ , $V_{CE}=4V$ )	40	250	---
$V_{CE(sat)}^*$	Collector-Emitter Saturation Voltage ( $I_C=500mA$ , $I_B=50mA$ )	---	0.8	V
$f_T$	Transition Frequency ( $V_{CE}=4V$ , $I_C=0.05A$ , $f=10MHz$ )	50	---	MHz
$T_{ON}$	Turn-On Time ( $I_C=500mA$ , $V_{CC}=30V$ , $I_{B1}=50mA$ )		80	ns
$T_{OFF}$	Turn-Off Time ( $I_C=500mA$ , $V_{CC}=30V$ , $I_{B1}=-I_{B2}=50mA$ )		800	ns

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.  
2.Pulsed: Pulse duration = 300us, duty cycle = 1 %

## Medium Power Silicon NPN Planar Transistor



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.335	.370	8.509	9.40	$\Phi$
B	-----	.334	-----	8.50	$\Phi$
C	-----	.260	-----	6.60	
D	.50	-----	12.7	-----	
E	.200		5.08		$\Phi$ TYP
F	.029	.045	7.366	11.43	
G	-----	.050	-----	1.27	
H	.009	.031	0.229	7.874	
J	44°	46°	44°	46°	
K	.028	.034	0.711	0.864	
L	.016	.021	0.406	0.533	



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### Ordering Information :

Device	Packing
Part Number-BP	Bulk; 50pcs/Box

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