2N5769
PN2369A

SILICON
NPN TRANSISTORS

TO-92 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 2N5769 and PN2369A are epitaxial planar NPN Silicon Transistors designed for ultra high speed saturated switching applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CES}	40	V
Collector-Emitter Voltage	V_{CEO}	15	V
Emitter-Base Voltage	V_{EBO}	4.5	V
Continuous Collector Current	I_C	200	mA
Peak Collector Current	I_{CM}	500	mA
Power Dissipation	P_D	350	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted)

SYMBOL	**TEST CONDITIONS**	**MIN**	**MAX**	**UNITS**
I_{CBO}	V_{CB}=20V		400	nA
I_{CBO}	V_{CB}=20V, T_A=125°C		30	µA
I_{CES}	V_{CE}=20V (2N5769)		400	nA
I_{EBO}	V_{EB}=4.5V (2N5769)		1.0	µA
BV_{CBO}	I_C=10µA	40		V
BV_{CES}	I_C=10µA	40		V
BV_{CEO}	I_C=10mA	15		V
BV_{EBO}	I_E=10µA	4.5		V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA		200	mV
$V_{CE(SAT)}$	I_C=30mA, I_B=3.0mA		250	mV
$V_{CE(SAT)}$	I_C=100mA, I_B=10mA		500	mV
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA	700	850	mV
$V_{BE(SAT)}$	I_C=30mA, I_B=3.0mA		1.15	V
$V_{BE(SAT)}$	I_C=100mA, I_B=10mA		1.6	V
h_{FE}	V_{CE}=0.35V, I_C=10mA (2N5769)	40	120	
h_{FE}	V_{CE}=1.0V, I_C=10mA (PN2369A)	40	120	
h_{FE}	V_{CE}=0.4V, I_C=30mA	30		
h_{FE}	V_{CE}=1.0V, I_C=100mA	20		

R2 (7-November 2019)

2N5769
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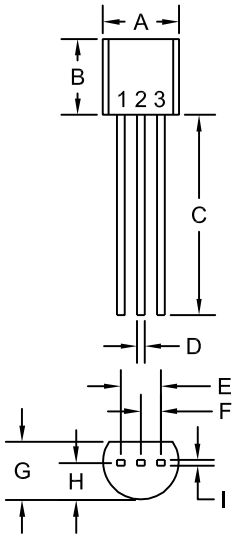
ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
f_T	V_{CE}=10V, I_C=10mA, f=100MHz	500		MHz
C_{ob}	V_{CB}=5.0V, I_E=0, f=140kHz		4.0	pF
t_{on}	V_{CC}=3.0V, I_C=10mA, I_{B1}=3.0mA, I_{B2}=1.5mA		12	ns
t_{off}	V_{CC}=3.0V, I_C=10mA, I_{B1}=3.0mA, I_{B2}=1.5mA		18	ns
t_s	V_{CC}=10V, I_C=10mA, I_{B1}=I_{B2}=10mA		13	ns

TO-92 CASE - MECHANICAL OUTLINE



R1

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A (DIA)	0.175	0.205	4.45	5.21
B	0.170	0.210	4.32	5.33
C	0.500	-	12.70	-
D	0.016	0.022	0.41	0.56
E	0.100		2.54	
F	0.050		1.27	
G	0.125	0.165	3.18	4.19
H	0.080	0.105	2.03	2.67
I	0.015		0.38	

TO-92 (REV: R1)

LEAD CODE:
1) Emitter
2) Base
3) Collector

MARKING: FULL PART NUMBER

OUTSTANDING SUPPORT AND SUPERIOR SERVICES

PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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PN2369A PBFREE