Data Sheet

Central™ Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

2N2369A TO-18 CASE
2N5769 TO-92 CASE (EBC)
PN2369A TO-92 CASE (EBC)

NPN SILICON TRANSISTORS

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N2369A, 2N5769, PN2369A types are silicon NPN epitaxial planar transistors designed for ultra high speed saturated switching applications.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL	2N2369A	2N5769 PN2369A	UNIT
Collector-Base Voltage	V_{CBO}	40	40	V
Collector-Emitter Voltage	V_{CES}	40	40	V
Collector-Emitter Voltage	V_{CEO}	15	15	V
Emitter-Base Voltage	V_{EBO}	4.5	4.5	V
Collector Current	I_C	200	200	mA
Collector Current (PEAK)	I_{CM}	500	500	mA
Power Dissipation	P_D	360	625	mW
Power Dissipation (T_C=25°C)	P_D	1.2	1.5	W
Operating and Storage Junction Temperature (TO-18)	T_J, T_{STG}	-65 TO +200		°C
Operating and Storage Junction Temperature (TO-92)	T_J, T_{STG}	-65 TO +150		°C

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

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_{CBO}	V_{CB}=20V		400	nA
I_{CBO}	V_{CB}=20V, T_A=150°C (2N2369A ONLY)		30	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		0.20	V
$V_{CE(SAT)}$	I_C=10mA, I_B=1.0mA, T_A=125°C (2N2369A ONLY)		0.30	V
$V_{CE(SAT)}$	I_C=30mA, I_B=3.0mA		0.25	V
$V_{CE(SAT)}$	I_C=100mA, I_B=10mA		0.50	V
$V_{BE(SAT)}$	I_C=10mA, I_B=1.0mA	0.70	0.85	V
$V_{BE(SAT)}$	I_C=30mA, I_B=3.0mA		1.15	V
$V_{BE(SAT)}$	I_C=100mA, I_B=10mA		1.60	V
h_{FE}	V_{CE}=0.35V, I_C=10mA	40	120	
h_{FE}	V_{CE}=0.35V, I_C=10mA, T_A=-55°C (2N2369A ONLY)	20		
h_{FE}	V_{CE}=0.40V, I_C=30mA	30		
h_{FE}	V_{CE}=1.0V, I_C=100mA	20		
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		12	ns
t_{OFF}	V_{CC}=3.0V, I_C=10mA, I_{B1}=3.0mA, I_{B2}=-1.5mA		18	ns
τ_s	V_{CC}=10V, I_C=10mA, I_{B1}=I_{B2}=10mA		13	ns