

CentralTM Semiconductor Corp.

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

Manufacturers of World Class Discrete Semiconductors

1N3600
1N4150

SILICON SWITCHING DIODE

JEDEC DO-35 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 1N3600, 1N4150, silicon planar epitaxial diode is characterized by its miniature size, ultra fast switching speed, low capacitance, low leakage, and high conductance. Accordingly, it is ideally suited for applications such as pulse applications, avalanche circuits, core drivers, and for any critical circuit requiring high conductance at power dissipation without sacrificing fast recovery capability. (Both devices have identical electrical and mechanical specifications).

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

	SYMBOL		UNIT
Peak Working Inverse Voltage	V_{RWM}	50	V
Average Forward Current	I_O	200	mA
Forward Steady State Current	I_F	400	mA
Recurrent Peak Forward Current	i_f	600	mA
Peak Forward Surge Current (1.0s Pulse)	I_{FSM}	1.0	A
Peak Forward Surge Current (1.0us Pulse)	I_{FSM}	4.0	A
Power Dissipation	P_D	500	mW
Operating and Storage			
Junction Temperature	T_J, T_{STG}	-65 to +200	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
I_R	V_R =Rated V_{RWM}		100	nA
I_R	V_R =Rated V_{RWM} , $T_A=150^{\circ}\text{C}$		100	μA
BV_R	$I_R=5.0\mu\text{A}$	75		V
V_F	$I_F=1.0\text{mA}$	0.54	0.62	V
V_F	$I_F=10\text{mA}$	0.66	0.74	V
V_F	$I_F=50\text{mA}$	0.76	0.86	V
V_F	$I_F=100\text{mA}$	0.82	0.92	V
V_F	$I_F=200\text{mA}$	0.87	1.0	V
C	$V_R=0\text{V}$, $f=1.0\text{MHz}$		2.5	pF
t_{fr}	$V_{fr}=1.0\text{V}$, $I_f=200\text{mA}$, $t_r=0.4\text{ns}$		10	ns
t_{rr}	$I_f=I_r=10\text{mA}$ to 200mA , $R_L=100\Omega$		4.0	ns
t_{rr}	$I_f=I_r=200\text{mA}$ to 400mA , $R_L=100\Omega$		6.0	ns

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

Corporate Headquarters & Customer Support Team

Central Semiconductor Corp.
145 Adams Avenue
Hauppauge, NY 11788 USA
Main Tel: (631) 435-1110
Main Fax: (631) 435-1824
Support Team Fax: (631) 435-3388
www.centrasemi.com

Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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