

CentralTM Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors

1N914
1N4148

SILICON SWITCHING DIODE

JEDEC DO-35 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 1N914, 1N4148 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 Repetitive Reverse Voltage	V_{RRM}	100	V
Peak Working Reverse Voltage	V_{RWM}	75	V
Average Forward Current	I_O	150	mA
Forward Steady-State Current	I_F	200	mA
Peak Forward Surge Current (1.0 μ s pulse)	I_{FSM}	2000	mA
Power Dissipation	P_D	500	mW
Operating and Storage			
Junction Temperature	T_J, T_{STG}	-65 TO +200	$^\circ\text{C}$

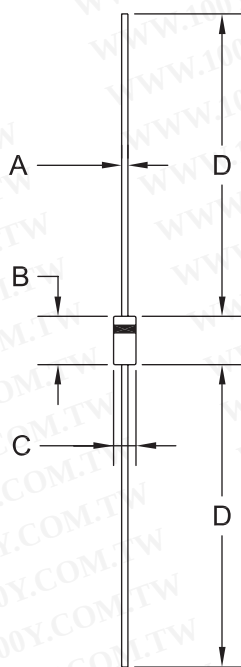
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
B_V	$I_R=1.0\text{mA}$	100		V
B_V	$I_R=100\mu\text{A}$	75		V
I_R	$V_R=20\text{V}$		25	nA
V_F	$I_F=10\text{mA}$		1.0	V
C_T	$V_R=0\text{V}, f=1.0\text{MHz}$		4.0	pF
t_{rr}	$V_R=6.0\text{V}, I_F=10\text{mA}, I_{RR}=1.0\text{mA}, R_L=100\Omega$		4.0	ns

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-54151736
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Package Details - DO-35

Mechanical Drawing



DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.018	0.022	0.46	0.56
B	0.120	0.200	3.05	5.08
C	0.060	0.090	1.52	2.29
D	1.000	-	25.40	-

DO-35 (REV: R1)

Lead Code:
Cathode band

R1

Packing options:

Bulk - Packing Code: D

D = White corrugated box with black conductive coating (surface resistivity of $<10^5$ ohms per square).

Bulk Packing Quantity: 2,500

Tape and Reel - Packing Code: A

A = Axial taped and reeled in accordance with EIA-296-E. If required, individual reels placed in poly antistatic coated bags (surface resistivity of $>10^9$ and $<10^{13}$ ohms per square).

Tape and Reel Packing Quantity: 10,000

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Material Composition Specification

DO-35 Case

Available with Pb (lead)-free plating*



Device average mass136 mg

Fluctuation margin +/-10%

Device part	Substance	mass (mg)
active device	doped Si	0.02
leadframe	alloy -Fe -Cu -Ni	66.5 28.9 3.65
*plating	SnPb20 or Sn (100% tin, Pb-free)	3.04 3.04
encapsulation	glass -PbO -SiO ₂	20.5 13.7

* specify Lead-free when ordering 100% tin (Pb-free) plating option.

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R0 (19-June 2006)