

## Fast Switching Diodes

### Features

- Fast switching speed
- High reliability
- High conductance
- For general purpose switching applications
- AEC-Q101 qualified
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



**RoHS**  
COMPLIANT  
HALOGEN  
**FREE**



94 9367

### Mechanical Data

**Case:** DO-35

**Weight:** approx. 125 mg

**Cathode Band Color:** black

**Packaging codes/options:**

TR/10 k per 13" reel (52 mm tape), 50 k/box

TAP/10 k per Ammopack (52 mm tape), 50 k/box

### Parts Table

Part	Ordering code	Type Marking	Remarks
1N914	1N914-TR or 1N914-TAP	1N914	Tape and Reel/Ammopack

### Absolute Maximum Ratings

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Non repetitive peak reverse voltage		$V_{RM}$	100	V
Repetitive peak reverse voltage		$V_{RRM}$	75	V
Working peak reverse voltage		$V_{RWM}$	75	V
DC blocking voltage		$V_R$	75	V
RMS Reverse voltage		$V_{R(RMS)}$	53	V
Forward continuous current		$I_F$	300	mA
Average rectified current	Half wave rectification with resistive load and $f > 50\text{ MHz}$	$I_{FAV}$	200	mA
Non repetitive peak forward surge current	$t = 1\text{ s}$	$I_{FSM}$	1	A
	$t = 1\text{ }\mu\text{s}$	$I_{FSM}$	4	A
Power dissipation	$l = 4\text{ mm}$ , $T_L = 25\text{ }^{\circ}\text{C}$	$P_{tot}$	500	mW

### Thermal Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air	$l = 4\text{ mm}$ , $T_L = \text{constant}$	$R_{thJA}$	300	K/W
Junction temperature		$T_j$	+ 175	$^{\circ}\text{C}$
Storage temperature range		$T_{stg}$	- 65 to + 175	$^{\circ}\text{C}$

### Electrical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

Parameter	Test condition	Symbol	Min.	Typ.	Max.	Unit
Forward voltage	$I_F = 10\text{ mA}$	$V_F$			1000	mV
Breakdown voltage	$I_R = 100\text{ }\mu\text{A}$	$V_{(BR)}$	100			V
Peak reverse current	$V_R = 75\text{ V}$	$I_R$			5	$\mu\text{A}$
	$V_R = 20\text{ V}, T_j = 150\text{ }^{\circ}\text{C}$	$I_R$			50	$\mu\text{A}$
	$V_R = 20\text{ V}$	$I_R$			25	nA
Diode capacitance	$V_R = 0, f = 1\text{ MHz}$	$C_D$			4	pF
Reverse recovery time	$I_F = 10\text{ mA}$ to $I_R = 1\text{ mA}$ , $V_R = 6\text{ V}, R_L = 100\text{ }\Omega$	$t_{rr}$			4	ns

### Typical Characteristics

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

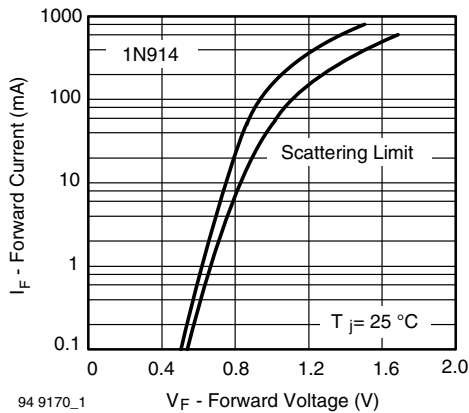


Figure 1. Forward Current vs. Forward Voltage

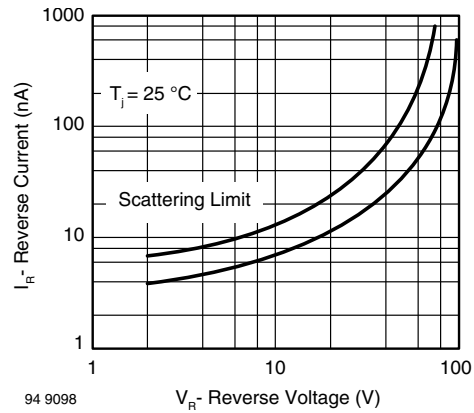
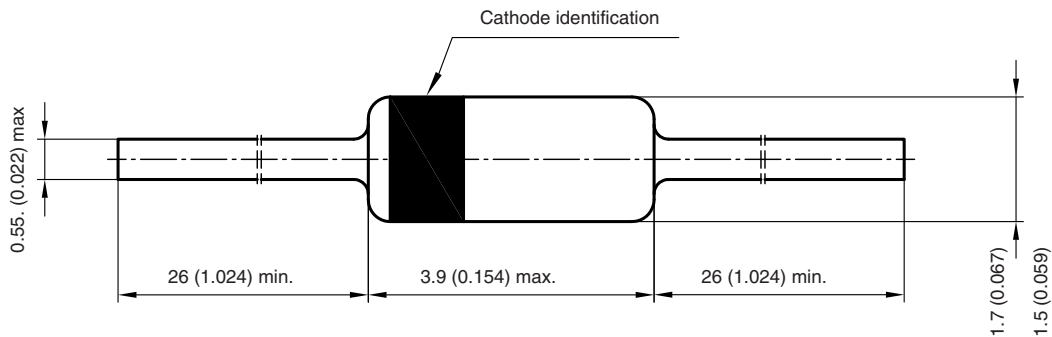


Figure 2. Reverse Current vs. Reverse Voltage

### Package Dimensions in millimeters (inches): DO-35



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