Fast Switching Diodes

Features

- Fast switching speed
- High reliability
- High conductance
- For general purpose switching applicions
- 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 °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 MHz	I_{FAV}	200	mA
Non repetitive peak forward surge current	t = 1 s	I_{FSM}	1	A
	t = 1 µs	I_{FSM}	4	A
Power dissipation	l = 4 mm, T_L = 25 °C	P_{tot}	500	mW

Thermal Characteristics

T_{amb} = 25 °C unless otherwise specified

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

For technical questions within your region, please contact one of the following:
DiodesAmericas@vishay.com, DiodesAsia@vishay.com, DiodesEurope@vishay.com

Electrical Characteristics

T_{amb} = 25 °C, unless otherwise specified

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

Typical Characteristics

T_{amb} = 25 °C, unless otherwise specified

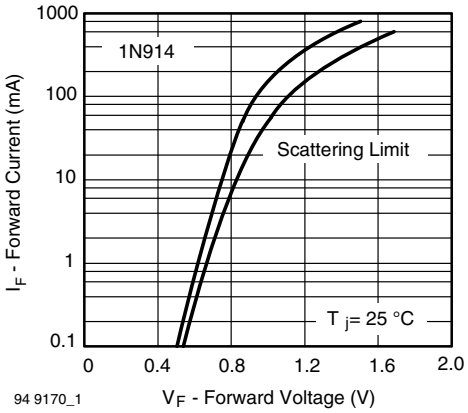


Figure 1. Forward Current vs. Forward Voltage

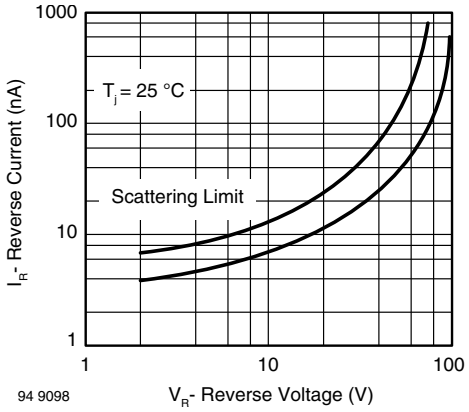
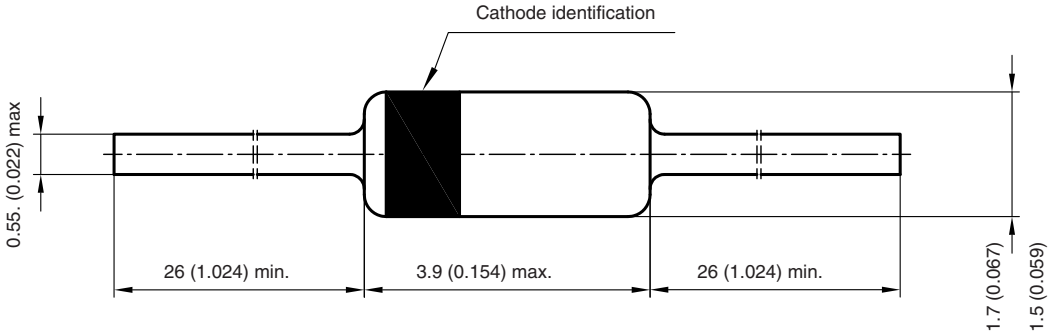


Figure 2. Reverse Current vs. Reverse Voltage

Package Dimensions in millimeters (inches): DO-35



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