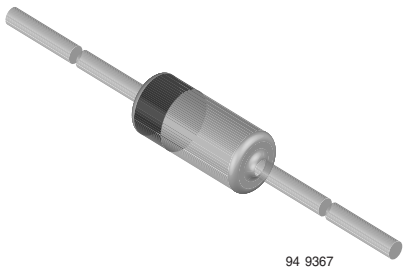
Schottky Diodes

Features

- For general purpose applications
- Metal-on-silicon Schottky barrier device which is protected by a PN junction guard ring. The low forward voltage drop and fast switching make it ideal for protection of MOS devices, steering, biasing and coupling diodes for fast switching and low logic level applications.
- This diode is also available in the MiniMELF case with type designation LL5711 and LL6263.



Mechanical Data

Case: DO-35 Glass Case
Weight: approx. 125 mg
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	Marking	Remarks
1N5711	1N5711-TR or 1N5711-TAP	-	Tape and Reel / Ammopack
1N6263	1N6263-TR or 1N6263-TAP	-	Tape and Reel / Ammopack

Absolute Maximum Ratings

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

Parameter	Test condition	Part	Symbol	Value	Unit
Peak inverse voltage		1N5711	V_{RRM}	70	V
		1N6263	V_{RRM}	60	V
Power dissipation (infinite heatsink)			P_{tot}	400[1)]	mW
Maximum single cycle surge 10 µs square wave			I_{FSM}	2.0	A

[1)] Valid provided that leads at a distance of 4 mm from case are kept at ambient temperature

Thermal Characteristics

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

Parameter	Test condition	Symbol	Value	Unit
Thermal resistance junction to ambient air		R_{thJA}	0.3[1)]	°C/mW
Junction temperature		T_j	125	°C
Storage temperature range		T_S	- 55 to + 175	°C

[1)] Valid provided that leads at a distance of 4 mm from case are kept at ambient temperature

Electrical Characteristics

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

Parameter	Test condition	Part	Symbol	Min	Typ.	Max	Unit
Reverse breakdown voltage	I_R = 10 µA	1N5711	V_R	70			V
		1N6263	V_R	60			V
Leakage current	V_R = 50 V		I_R			200	nA
Forward voltage drop	I_F = 1.0 mA		V_F			0.41	V
	I_F = 15 mA		V_F			1.0	V
Junction capacitance	V_R = 0 V, f = 1.0 MHz	1N5711	C_{tot}			2.0	pF
		1N6263	C_{tot}			2.2	pF
Reverse recovery time	I_F = I_R = 5.0 mA, recover to 0.1 I_R		t_{rr}			1.0	ns

Typical Characteristics (T_{amb} = 25 °C unless otherwise specified)

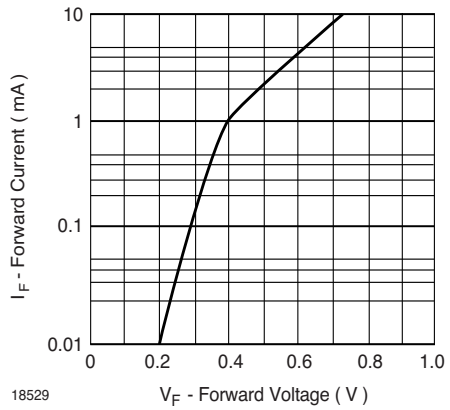


Fig. 1 Typical Variation of Forward Current vs. Forward Voltage

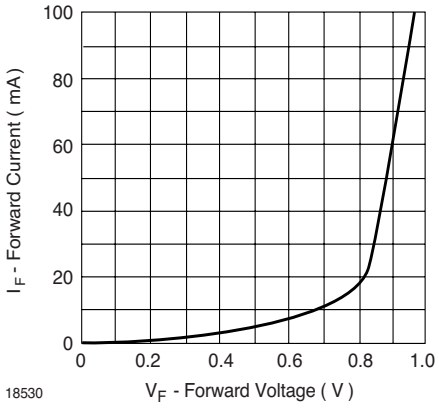


Fig. 2 Typical Forward Conduction Curve

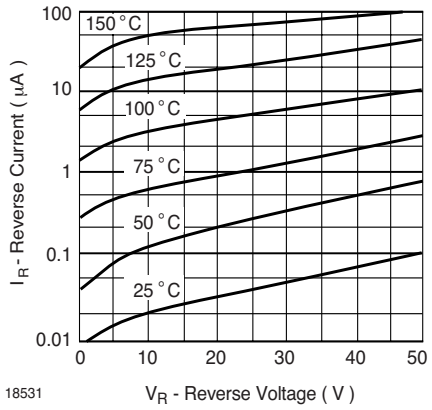


Fig. 3 Typical Variation of Reverse Current at Various Temperatures

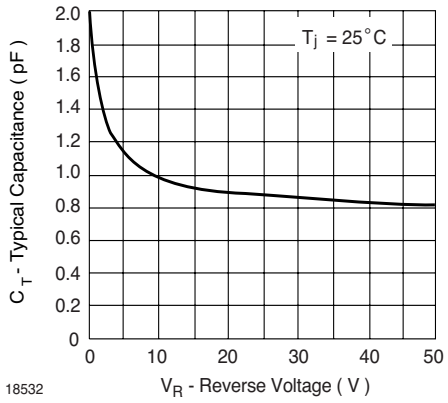
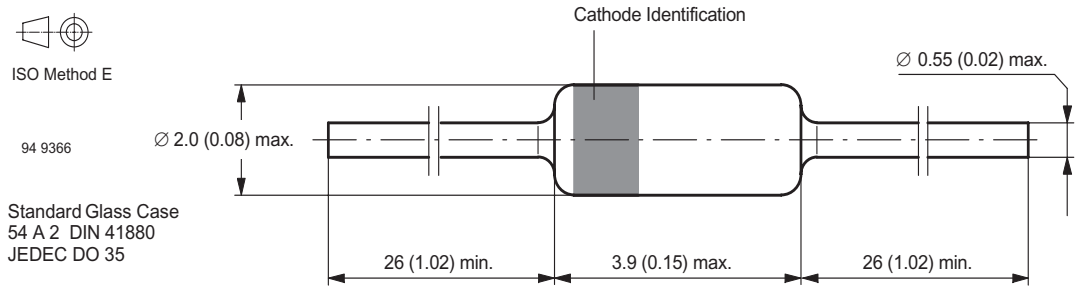


Fig. 4 Typical Capacitance Curve as a Function of Reverse Voltage

Package Dimensions in mm (Inches)



Ozone Depleting Substances Policy Statement

It is the policy of **Vishay Semiconductor GmbH** to

1. Meet all present and future national and international statutory requirements.
2. Regularly and continuously improve the performance of our products, processes, distribution and operatingsystems with respect to their impact on the health and safety of our employees and the public, as well as their impact on the environment.

It is particular concern to control or eliminate releases of those substances into the atmosphere which are known as ozone depleting substances (ODSs).

The Montreal Protocol (1987) and its London Amendments (1990) intend to severely restrict the use of ODSs and forbid their use within the next ten years. Various national and international initiatives are pressing for an earlier ban on these substances.

Vishay Semiconductor GmbH has been able to use its policy of continuous improvements to eliminate the use of ODSs listed in the following documents.

1. Annex A, B and list of transitional substances of the Montreal Protocol and the London Amendments respectively
2. Class I and II ozone depleting substances in the Clean Air Act Amendments of 1990 by the Environmental Protection Agency (EPA) in the USA
3. Council Decision 88/540/EEC and 91/690/EEC Annex A, B and C (transitional substances) respectively.

Vishay Semiconductor GmbH can certify that our semiconductors are not manufactured with ozone depleting substances and do not contain such substances.

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