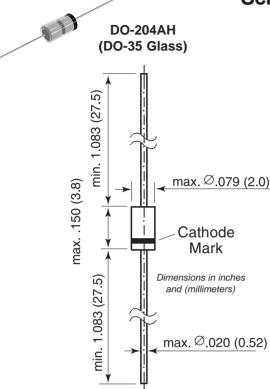


Vishay Semiconductors formerly General Semiconductor

# **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. 0.13g
Packaging Codes/Options:

D7/10K per 13" reel (52mm tape), 20K/box D8/10K per Ammo tape (52mm tape), 20K/box

## Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter		Symbol	Value	Unit	
Peak Inverse Voltage	1N5711 1N6263	Vrrm	70 60	V	
Power Dissipation (Infinite Heatsink)		P <sub>tot</sub>	400 <sup>(1)</sup>	mW	
Maximum Single Cycle Surge 10 μs Square Wave		IFSM	2.0	А	
Thermal Resistance Junction to Ambient Air		Rѳја	0.3 <sup>(1)</sup>	°C/mW	
Junction Temperature		Tj	125 <sup>(1)</sup>	°C	
Storage Temperature Range		Ts	-55 to +150 <sup>(1)</sup>	°C	

### Electrical Characteristics (T<sub>J</sub> = 25°C unless otherwise noted)

Parameter		Symbol	Test Condition	Min	Тур	Max	Unit
Reverse Breakdown Voltage	1N5711 1N6263	V <sub>(BR)R</sub>	I <sub>R</sub> = 10μA	70 60	_	_	V
Leakage Current		IR	V <sub>R</sub> = 50V	_	_	200	nA
Forward Voltage Drop		VF	IF = 1mA IF = 15mA	_	_	0.41 1.0	V
Junction Capacitance	1N5711 1N6263	C <sub>tot</sub>	V <sub>R</sub> = 0V, f = 1MHz	_	_	2.0 2.2	pF
Reverse Recovery Time		trr	IF = IR = 5mA, recover to 0.1I <sub>R</sub>	_	_	1	ns

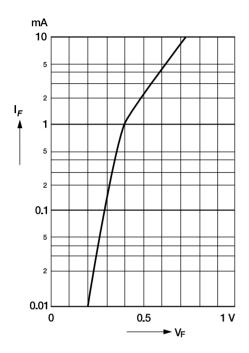
Note: (1) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

# 1N5711 and 1N6263

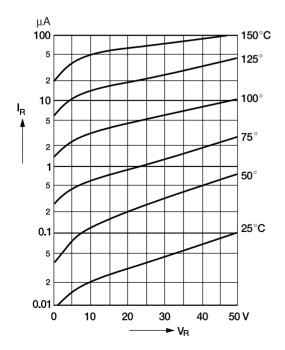
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# Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

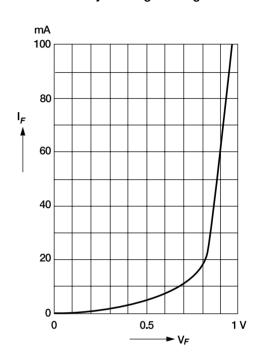
Typical variation of fwd. current vs. fwd. voltage for primary conduction through the Schottky barrier



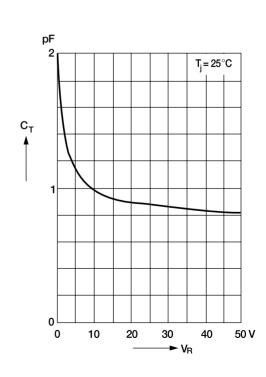
Typical variation of reverse current at various temperatures



#### Typical forward conduction curve of combination Schottky barrier and PN junction guard ring



Typical capacitance curve as a function of reverse voltage



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