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# 1N5282 Small Signal Diode

November 2009



# **Absolute Maximum Ratings\*** $T_A=25$ °C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	80	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	200	mA
I <sub>FSM</sub>	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0 4.0	A A
T <sub>STG</sub>	Storage Temperature Range	-65 to +200	°C
T <sub>J</sub>	Operating Junction Temperature	175	°C

<sup>\*</sup> These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

## **Thermal Characteristics**

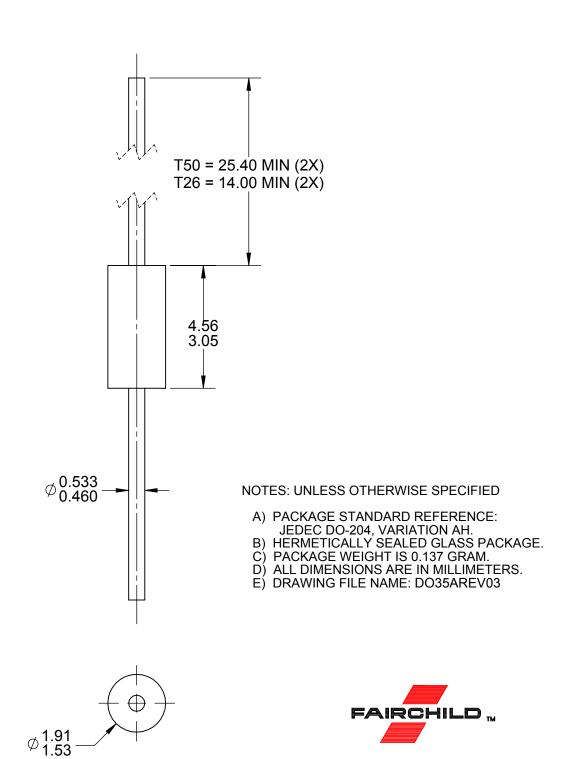
Symbol	Parameter	Value	Units
P <sub>D</sub>	Power Dissipation	500	mV
$R_{ hetaJA}$	Thermal Resistance, Junction to Ambient	300	°C/W

<sup>1)</sup> These ratings are based on a maximum junction temperature of 200 degrees C.

<sup>2)</sup> These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

# **Electrical Characteristics** $T_A=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
$V_{R}$	Breakdown Voltage	I <sub>R</sub> = 5 μA	80		V
V <sub>F</sub>	Forward Voltage	$I_F = 0.1 \text{ mA}$ $I_F = 1.0 \text{ mA}$ $I_F = 10 \text{ mA}$ $I_F = 100 \text{ mA}$ $I_F = 300 \text{ mA}$ $I_F = 500 \text{ mA}$	0.45 0.55 0.67 0.80 0.92 1.05	0.49 0.60 0.725 0.90 1.1 1.3	V V V V
I <sub>R</sub>	Reverse Current	V <sub>R</sub> = 55 V V <sub>R</sub> = 55 V, T <sub>A</sub> = 150 °C		100 100	nA μA
C <sub>T</sub>	Total Capacitance	V <sub>R</sub> = 0, f = 1.0 MHz		2.5	pF
t <sub>rr1</sub>	Reverse Recovery Time	$I_F = I_R = 10 \text{ mA}, R_L = 100\Omega$ $I_{rr} = 1.0 \text{ mA}$		4	ns
t <sub>rr2</sub>	Reverse Recovery Time	$I_F = I_R = 200 \text{ mA}, R_L = 100\Omega$ $I_{rr} = 20\text{mA}$		4	ns







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Definition of Terms				
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No Identification Needed	Full Production	Datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve the design.		
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