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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 _{RRM}	Maximum Repetitive Reverse Voltage	V	
I _{F(AV)}	Average Rectified Forward Current	mA	
I _{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond 4.0		A A
T _{STG}	Storage Temperature Range	-65 to +200	°C
T _J	Operating Junction Temperature 175		°C

^{*} These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

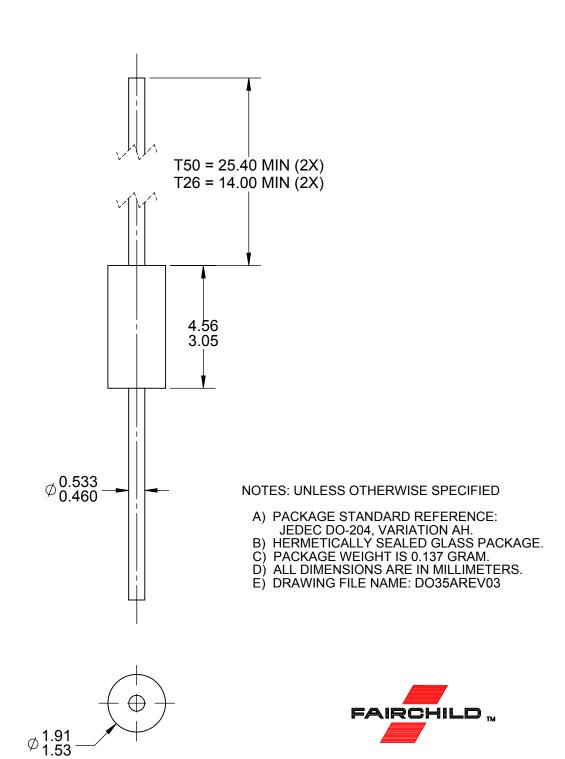
Symbol	Parameter	Value	Units
P _D	Power Dissipation	500	mV
$R_{ hetaJA}$	Thermal Resistance, Junction to Ambient	300	°C/W

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

²⁾ 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 _R = 5 μA	80		V
V _F	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 _R	Reverse Current	V _R = 55 V V _R = 55 V, T _A = 150 °C		100 100	nA μA
C _T	Total Capacitance	V _R = 0, f = 1.0 MHz		2.5	pF
t _{rr1}	Reverse Recovery Time	$I_F = I_R = 10 \text{ mA}, R_L = 100\Omega$ $I_{rr} = 1.0 \text{ mA}$		4	ns
t _{rr2}	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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