June 2015



1N/FDLL 914/A/B / 916/A/B / 4148 / 4448 Small Signal Diode



Cathode is denoted with a black band



THE PLACEMENT OF THE EXPANSION GAP HAS NO RELATIONSHIP TO THE LOCATION OF THE CATHODE TERMINAL

	SOD-80 COLOR BAND MARKING			
	DEVICE	1ST BAND		
	FDLL914 FDLL914A FDLL914B FDLL4148 FDLL4448	BLACK BLACK BLACK BLACK BLACK		
、	-1st band d and has wi	enotes cathode terminal der width		

Ordering Information

Part Number	Marking	Package	Packing Method
1N914	914	DO-204AH (DO-35)	Bulk
1N914_T50A	914	DO-204AH (DO-35)	Ammo
1N914TR	914	DO-204AH (DO-35)	Tape and Reel
1N914ATR	914A	DO-204AH (DO-35)	Tape and Reel
1N914B	914B	DO-204AH (DO-35)	Bulk
1N914BTR	914B	DO-204AH (DO-35)	Tape and Reel
1N916	916	DO-204AH (DO-35)	Bulk
1N916A	916A	DO-204AH (DO-35)	Bulk
1N916B	916B	DO-204AH (DO-35)	Bulk
1N4148	4148	DO-204AH (DO-35)	Bulk
1N4148TA	4148	DO-204AH (DO-35)	Ammo
1N4148_T26A	4148	DO-204AH (DO-35)	Ammo
1N4148_T50A	4148	DO-204AH (DO-35)	Ammo
1N4148TR	4148	DO-204AH (DO-35)	Tape and Reel
1N4148_T50R	4148	DO-204AH (DO-35)	Tape and Reel
1N4448	4448	DO-204AH (DO-35)	Bulk
1N4448TR	4448	DO-204AH (DO-35)	Tape and Reel
FDLL914	Black	SOD-80	Tape and Reel
FDLL914A	Black	SOD-80	Tape and Reel
FDLL914B	Black	SOD-80	Tape and Reel
FDLL4148	Black	SOD-80	Tape and Reel
FDLL4148_D87Z	Black	SOD-80	Tape and Reel
FDLL4448	Black	SOD-80	Tape and Reel
FDLL4448_D87Z	Black	SOD-80	Tape and Reel

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Absolute Maximum Ratings⁽¹⁾

Stresses exceeding the absolute maximum ratings may damage the device. The device may not function or be operable above the recommended operating conditions and stressing the parts to these levels is not recommended. In addition, extended exposure to stresses above the recommended operating conditions may affect device reliability. The absolute maximum ratings are stress ratings only. Values are at $T_A = 25^{\circ}$ C unless otherwise noted.

Symbol	Parameter	Value	Unit	
V _{RRM}	Maximum Repetitive Reverse Voltage		100	V
Ι _Ο	Average Rectified Forward Current		200	mA
١ _F	DC Forward Current		300	mA
۱ _f	Recurrent Peak Forward Current		400	mA
	Non-repetitive Peak Forward Surge Current	Pulse Width = 1.0 s	1.0	А
IFSM	Non-repetitive Fear Forward Surge Current	Pulse Width = 1.0 µs	4.0	A
T _{STG}	Storage Temperature Range		-65 to +200	°C
TJ	Operating Junction Temperature Range		-55 to +175	°C

Note:

1. These ratings are limiting values above which the serviceability of the diode may be impaired.

Thermal Characteristics

Symbol	Parameter	Max.	Unit
Cymbol		1N/FDLL 914/A/B / 916/A/B / 4148 / 4448	
PD	Power Dissipation	500	mW
R _{θJA}	Thermal Resistance, Junction-to-Ambient	300	°C/W

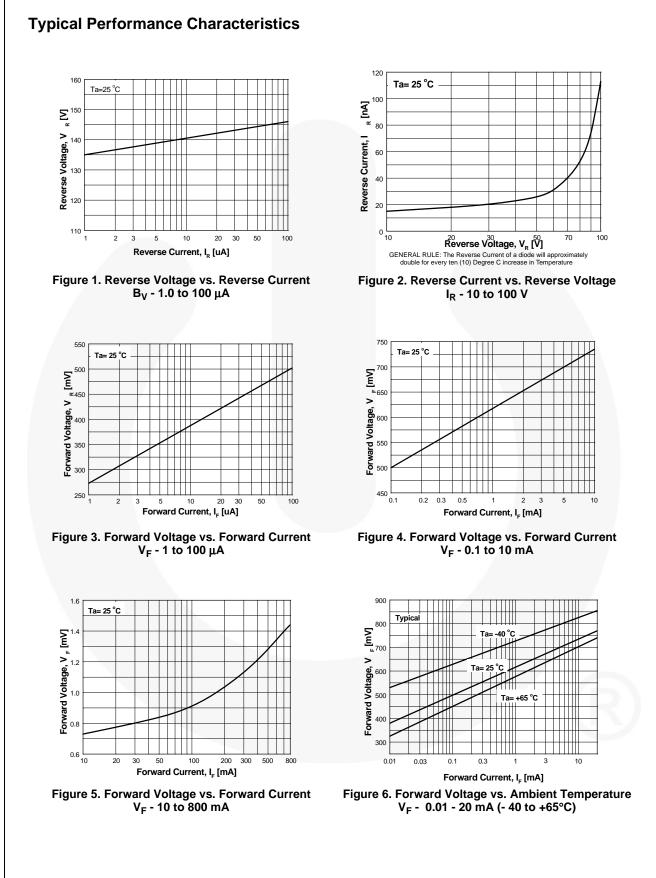
Electrical Characteristics⁽²⁾

Values are at $T_A = 25^{\circ}C$ unless otherwise noted.

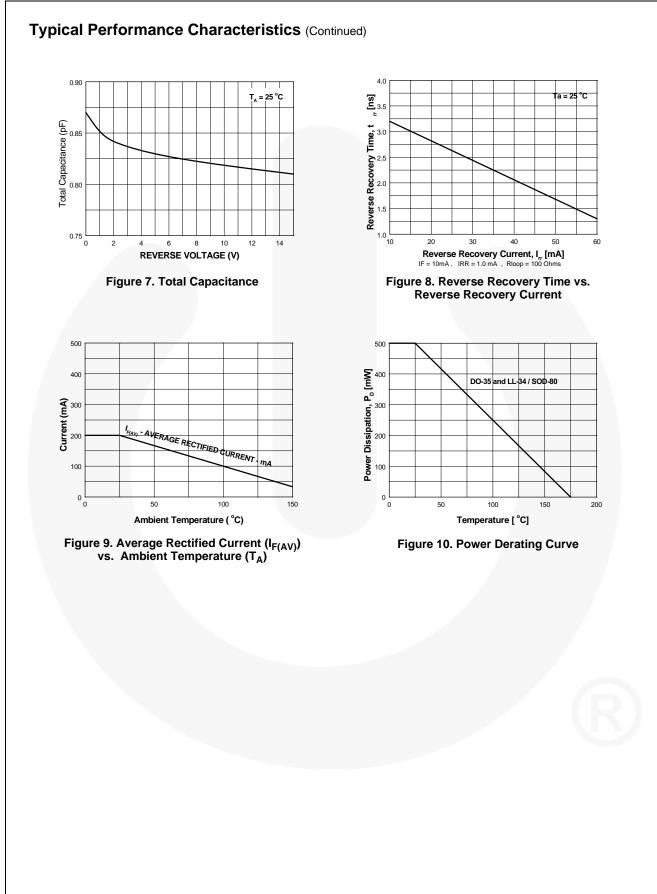
Symbol	Parameter		Conditions	Min.	Max.	Unit
M	Des studieurs Matterne		I _R = 100 μA	100		V
V _R	Breakdown Voltage	Ð	I _R = 5.0 μA	75		V
	Forward Voltage	914B / 4448	I _F = 5.0 mA	0.62	0.72	V
		916B	I _F = 5.0 mA	0.63	0.73	V
V		914 / 916 / 4148	I _F = 10 mA		1.0	V
V_{F}		914A / 916A	I _F = 20 mA		1.0	V
		916B	I _F = 20 mA		1.0	V
		914B / 4448	I _F = 100 mA		1.0	V
			V _R = 20 V		0.025	μA
I _R	Reverse Leakage		V _R = 20 V, T _A = 150°C		50	μA
			V _R = 75 V		5.0	μΑ
0	 Total Capacitance 	916/916A/916B/4448	V _R = 0, f = 1.0 MHz		2.0	pF
CT		914/914A/914B/4148	V _R = 0, f = 1.0 MHz		4.0	pF
t _{rr}	Reverse Recovery Time		I_F = 10 mA, V _R = 6.0 V (600 mA) I_{rr} = 1.0 mA, R _L = 100 Ω		4.0	ns

Note:

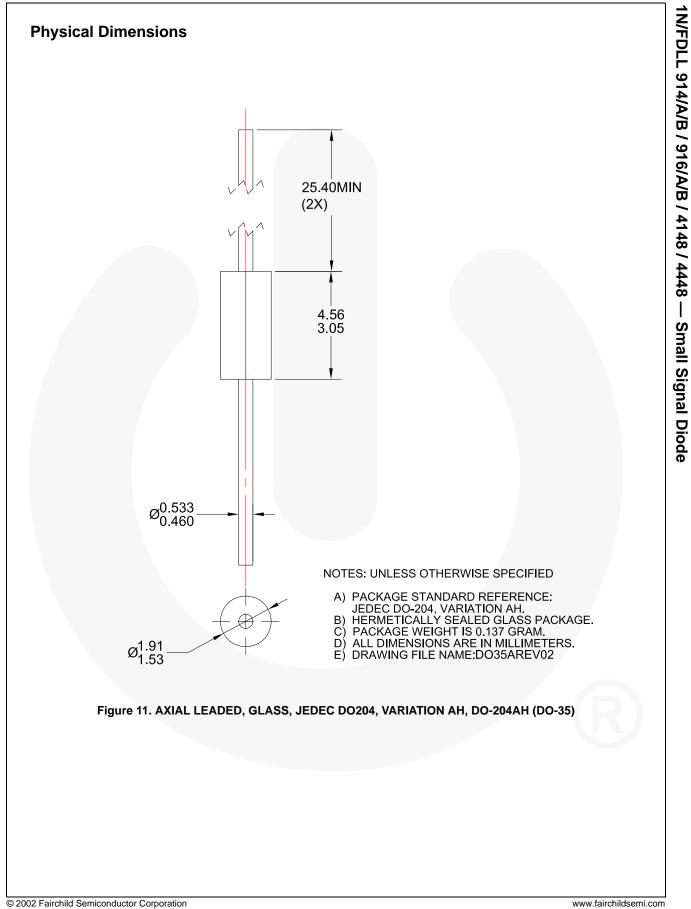
2. Non-recurrent square wave P_W = 8.3 ms.



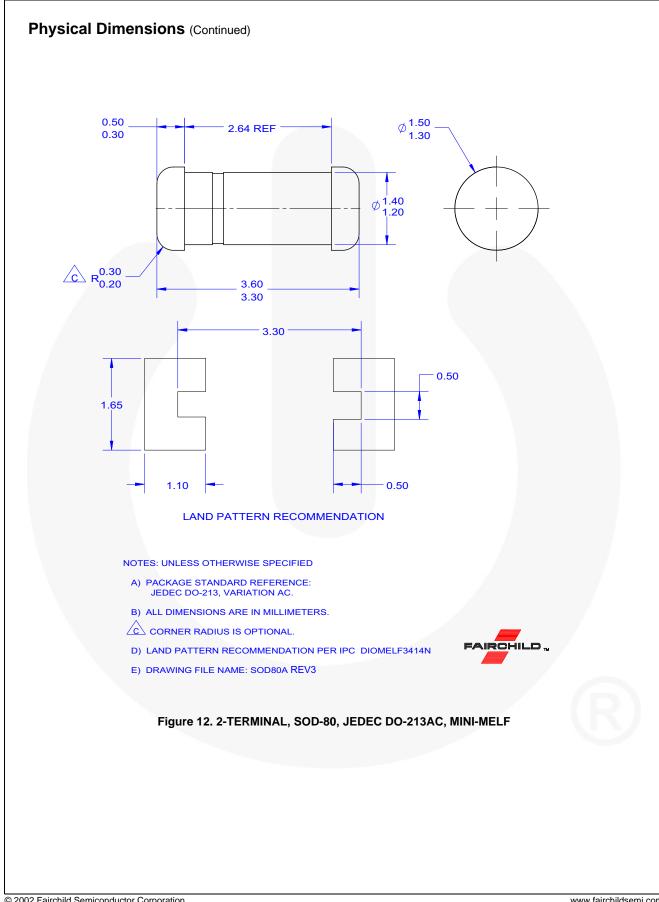
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1N/FDLL 914/A/B / 916/A/B / 4148 / 4448 Rev. 2.8



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— Small Signal Diode

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PF	20	DUC	T STATU	S DEFINITIONS
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Datasheet Identification	Product Status	Definition
Advance Information	Formative / In Design	Datasheet contains the design specifications for product development. Specifications may change in any manner without notice.
Preliminary	First Production	Datasheet contains preliminary data; supplementary data will be published at a later date. Fairchild Semiconductor reserves the right to make changes at any time without notice to improve design.
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.
Obsolete	Not In Production	Datasheet contains specifications on a product that is discontinued by Fairchild Semiconductor. The datasheet is for reference information only.
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Contact Us :

➤ Address :

401 Building No.5, JiuGe Business Center, Lane 2301, Yishan Rd Minhang District, Shanghai , China

- > Sales :
 - Direct +86 (21) 6401-6692
 - Email amall@ameya360.com
 - QQ 800077892
 - Skype ameyasales1 ameyasales2

> Customer Service :

Email service@ameya360.com

> Partnership :

Tel +86 (21) 64016692-8333

Email mkt@ameya360.com