



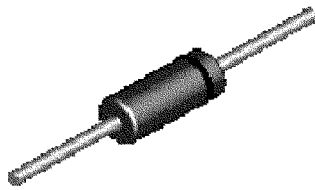
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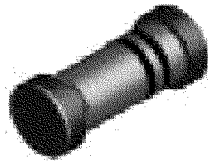
FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.
TEL: 2790-0314 FAX: 2790-0206



1N/FDLL 914/A/B / 916/A/B / 4148 / 4448



DO-35



LL-34

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

COLOR BAND MARKING

DEVICE	1ST BAND	2ND BAND
FDLL914	BLACK	BROWN
FDLL914A	BLACK	GRAY
FDLL914B	BROWN	BLACK
FDLL916	BLACK	RED
FDLL916A	BLACK	WHITE
FDLL916B	BROWN	BROWN
FDLL4148	BLACK	BROWN
FDLL4448	BROWN	BLACK

Small Signal Diode

Absolute Maximum Ratings*

$T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{RRM}	Maximum Repetitive Reverse Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0	A
		4.0	A
T_{stg}	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
T_J	Operating Junction Temperature	175	$^\circ\text{C}$

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

NOTES:

- 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.

Thermal Characteristics

Symbol	Characteristic	Max	Units
		1N/FDLL 914/A/B / 4148 / 4448	
P_D	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	$^\circ\text{C/W}$

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Small Signal Diode
 (continued)

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

Symbol	Parameter	Test Conditions	Min	Max	Units
V_R	Breakdown Voltage	$I_R = 100 \mu\text{A}$	100		V
		$I_R = 5.0 \mu\text{A}$	75		V
V_F	Forward Voltage	1N914B/4448 $I_F = 5.0 \text{ mA}$	620	720	mV
		1N916B $I_F = 5.0 \text{ mA}$	630	730	mV
		1N914/916/4148 $I_F = 10 \text{ mA}$		1.0	V
		1N914A/916A $I_F = 20 \text{ mA}$		1.0	V
		1N916B $I_F = 20 \text{ mA}$		1.0	V
		1N914B/4448 $I_F = 100 \text{ mA}$		1.0	V
I_R	Reverse Current	$V_R = 20 \text{ V}$		25	nA
		$V_R = 20 \text{ V}, T_A = 150^\circ\text{C}$		50	μA
		$V_R = 75 \text{ V}$		5.0	μA
C_T	Total Capacitance	1N916A/B/4448 $V_R = 0, f = 1.0 \text{ MHz}$		2.0	pF
		1N914A/B/4148 $V_R = 0, f = 1.0 \text{ MHz}$		4.0	pF
t_{rr}	Reverse Recovery Time	$I_F = 10 \text{ mA}, V_R = 6.0 \text{ V (60mA)},$ $I_{rr} = 1.0 \text{ mA}, R_L = 100\Omega$		4.0	ns

Typical Characteristics

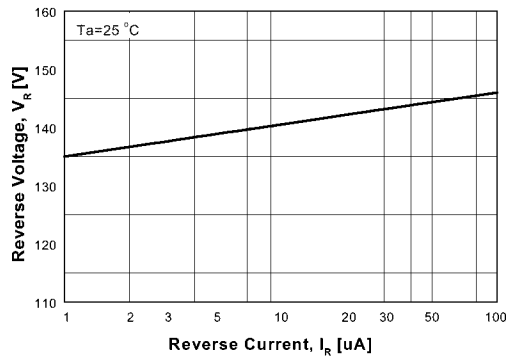


Figure 1. Reverse Voltage vs Reverse Current
 BV - 1.0 to 100 uA

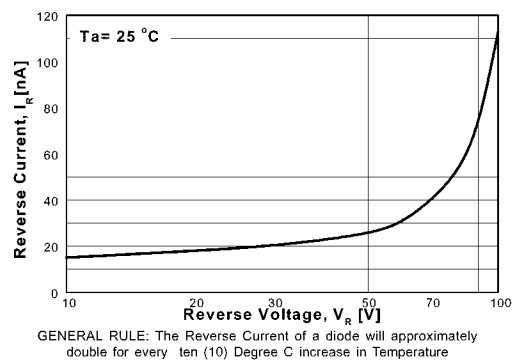


Figure 2. Reverse Current vs Reverse Voltage
 IR - 10 to 100 V

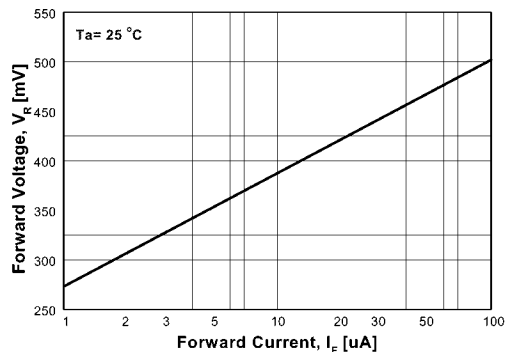


Figure 3. Forward Voltage vs Forward Current
 VF - 1 to 100 uA

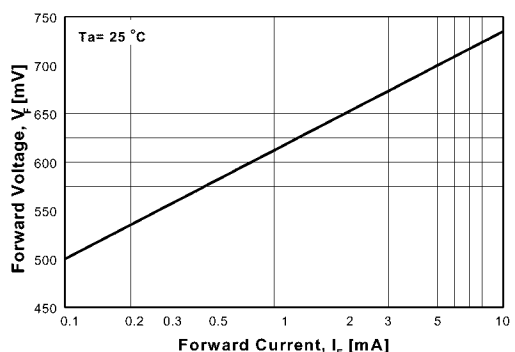


Figure 4. Forward Voltage vs Forward Current
 VF - 0.1 to 10 mA



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Small Signal Diode
 (continued)

Typical Characteristics (continued)

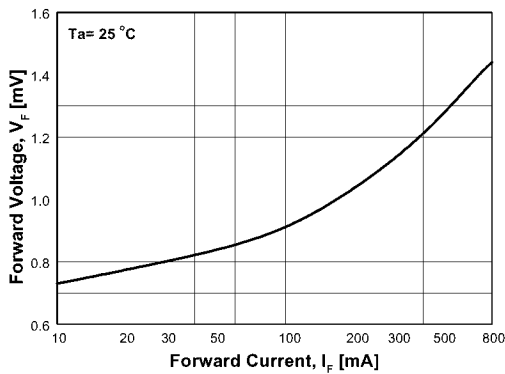


Figure 5. Forward Voltage vs Forward Current
 VF - 10 to 800 mA

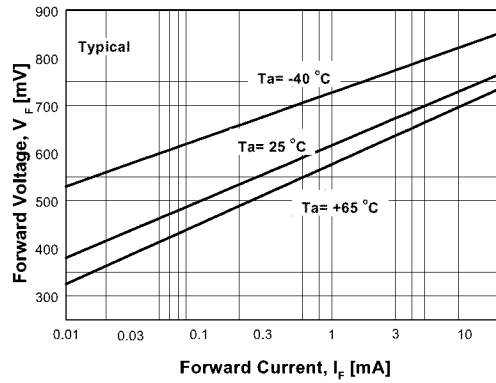


Figure 6. Forward Voltage
 vs Ambient Temperature
 VF - 0.01 - 20 mA (-40 to +65 Deg C)

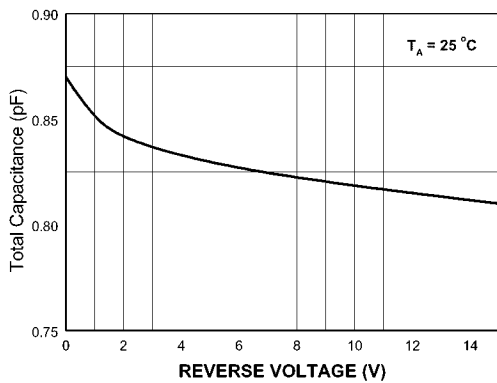


Figure 7. Total Capacitance

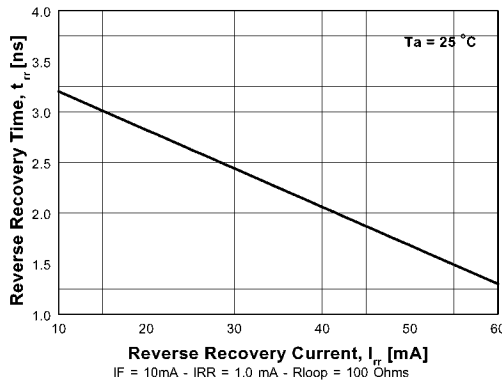


Figure 8. Reverse Recovery Time vs
 Reverse Recovery Current
IF = 10mA - IRR = 1.0 mA - Rloop = 100 Ohms

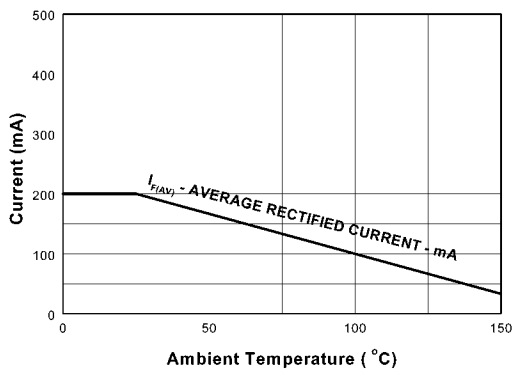


Figure 9. Average Rectified Current ($I_{F(AV)}$)
 versus Ambient Temperature (T_A)

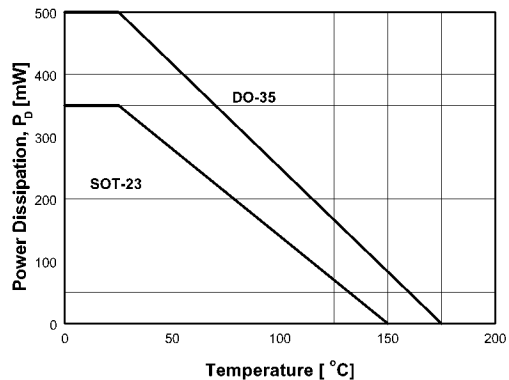


Figure 10. Power Derating Curve



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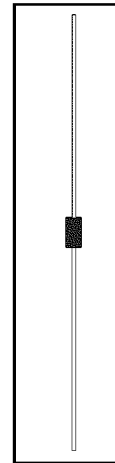
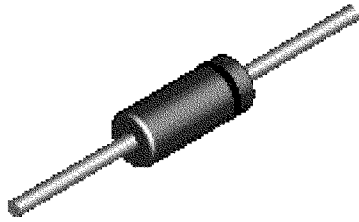
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DO-35 Package Dimensions

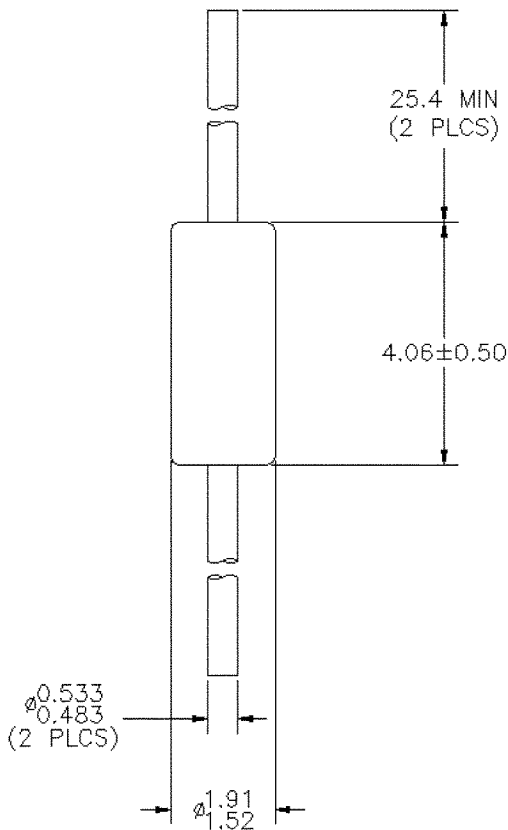


DO-35 (FS PKG Code D2)



1:1

Scale 1:1 on letter size paper
Dimensions shown below are in millimeters
Part Weight per unit (gram): 0.137



NOTES: UNLESS OTHERWISE SPECIFIED

- A) THIS PACKAGE CONFORMS TO JEDEC DO-204, VAR. AH, ISSUE B, DATED JANUARY 20, 1975.
- B) HERMITICALLY SEALED GLASS PACKAGE