FAIRCHILD
A Schlumberger Company

1N658/FDLL658

General Purpose Diodes

T-01-09

- **BV...120 V (MIN) @ 100 μA**
- **V_F...1.0 V (MAX) @ 100 mA**

PACKAGES

1N658	DO-35
FDLL658	LL-34

If you need this device in the SOT package, an electical equivalent is available. See FDSO1400 family.

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures		
Storage Temperature Range		−65°C to +200°C
Maximum Operating Junction Temperature		+175°C
Lead Temperature		+200°C
Power Dissipation (Note 2)		
Maximum Total Dissipation at 25°C Ambient		500 mW
Linear Derating Factor (from 25°C)		3.33 mW/°C
Maximum Voltage and Currents		
WIV	Working Inverse Voltage	100 V
I_O	Average Rectified Current	200 mA
I_F	Forward Current Steady State	500 mA
$i_{f(surge)}$	Peak Forward Surge Current	
	Pulse Width = 1.0s	1.0 A
	Pulse Width = 1.0μs	4.0 A

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
V_F	Forward Voltage		1.0	V	I_F = 100 mA
I_R	Reverse Current		50 25	nA μA	V_r = 50 V V_R = 50 V, T_A = 150°C
BV	Breakdown Voltage	120		V	I_R = 100 μA
t_{rr}	Reverse Recovery Time		300	ns	V_R = 40 V, I_f = 5.0 mA, R_L = 2.0 kΩ, C_L = 10 pF, Recovery to 80 kΩ

NOTES:
1. The maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. For product family characteristic curves, refer to Chapter 4, D1.

FAIRCHILD
A Schlumberger Company

1N659/660/661
FDLL659/660/661
General Purpose Diodes

T-01-09

- V_F...1.0 V (MAX) @ 6.0 mA
- t_{rr}...300 ns (MAX)

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures	
Storage Temperature Range	−65°C to +200°C
Maximum Operating Junction Temperature	+175°C
Lead Temperature	+260°C
Power Dissipation (Notes 2)	
Maximum Total Dissipation at 25°C Ambient	500 mW
Linear Derating Factor (from 25°C)	3.33 mW/°C

Maximum Voltage and Currents		**1N659**	**1N660**	**1N661**
WIV	Working Inverse Voltage	50 V	100 V	200 V
I_O	Average Rectified Current	200 mA	200 mA	200 mA
I_F	Forward Current Steady State	500 mA	500 mA	500 mA
$I_{f(surge)}$	Peak Forward Surge Current			
	Pulse Width = 1.0s	1.0 A	1.0 A	1.0 A
	Pulse Width = 1.0 μs	4.0 A	4.0 A	4.0 A

PACKAGES

1N659	DO-35
1N660	DO-35
1N661	DO-35
FDLL659	LL-34
FDLL660	LL-34
FDLL661	LL-34

If you need this device in the SOT package, an electical equivalent is available. See FDSO1200 family.

3

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	1N659		1N660		1N661		UNITS	TEST CONDITIONS
		MIN	MAX	MIN	MAX	MIN	MAX		
V_F	Forward Voltage		1.0		1.0		1.0	V	I_F = 6.0 mA
I_R	Reverse Current		5.0					μA	V_R = 50 V
					5.0			μA	V_R = 100 V
							10	μA	V_R = 200 V
			25					μA	V_R = 50 V, T_A = 100°C
					50			μA	V_R = 100 V, T_A = 100°C
							100	μA	V_R = 200 V, T_A = 100°C
BV	Breakdown Voltage	60		120		240		V	I_R = 100 μA
t_{rr}	Reverse Recovery Time		300		300		300	ns	V_r = 35 V, I_f = 30 mA, R_L = 2.0 kΩ, C_L = 10 pF, Recovery to 400 kΩ

NOTES:
1. The maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. For product family characteristic curves, refer to Chapter 4, D4 for 1N659, 4, D1 for 1N660 and 1N661.

FAIRCHILD
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1N746 through 1N759

T-11-11

500 mW Silicon Linear Diodes

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

Storage Temperature Range	−65°C to +200°C
Maximum Junction Operating Temperature	+175°C
Lead Temperature	+260°C

Power Dissipation (Note 2)

Maximum Total Power Dissipation at 25°C Ambient	500 mW
Linear Power Derating Factor (from 25°C)	3.33 mW/°C

PACKAGES

All Devices	DO-35

ELECTRICAL CHARACTERISTICS (25°C Ambient unless otherwise noted)

SYMBOL	Z_Z	V_Z	I_R		TC
Characteristic	Maximum Zener Impedance (Note 4) (I_Z = 20 mA)	Nominal Zener Voltage (Note 3) (I_Z = 20 mA)	Maximum Reverse Current (V_R = 1.0V) @25°C	@150°C	Typical Temperature Coefficient of V_Z
UNIT	Ω	V	μA	μA	%/°C
IN746	28.0	3.3	10.0	30.0	−0.070
IN747	24.0	3.6	10.0	30.0	−0.065
IN748	23.0	3.9	10.0	30.0	−0.060
IN749	22.0	4.3	2.0	30.0	−0.055
IN750	19.0	4.7	2.0	30.0	−0.043
IN751	17.0	5.1	1.0	20.0	±0.030
IN752	11.0	5.6	1.0	20.0	±0.028
IN753	7.0	6.2	0.1	20.0	+0.045
IN754	5.0	6.8	0.1	20.0	+0.050
IN755	6.0	7.5	0.1	20.0	+0.058
IN756	8.0	8.2	0.1	20.0	+0.062
IN757	10.0	9.1	0.1	20.0	+0.068
IN758	17.0	10.0	0.1	20.0	+0.075
IN759	30.0	12.0	0.1	20.0	+0.077

NOTES:
1. These ratings are limiting values above which the serviceability of the diode may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
3. Type numbers without suffix have ±10% tolerance on nominal V_Z.
   Type numbers with suffix A have ±5% tolerance on nominal V_Z.
4. The Zener impedance Z_Z is derived by superimposing a 60 Hz 2 mA (RMS) signal on the 20 mA I_Z test current.
5. For product family characteristic curves, refer to Chapter 4, D13

FAIRCHILD
A Schlumberger Company

1N/FDLL914/A/B/916/A/B
1N/FDLL4148/4149/4446
1N/FDLL4447/4448/4449

High Conductance Ultra Fast Switching Diodes T-03-09

- t_{rr}...4.0 ns (MAX)
- BV...100 V (MIN)

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures		
Storage Temperature Range		−65° to +200°C
Max Junction Operating Temperature		+175°C
Lead Temperature		+260°C
Power Dissipation (Note 2)		
Maximum Total Dissipation at 25°C		500 mW
Linear Derating Factor (from 25°C)		3.33 mW/°C
Maximum Voltage and Currents		
WIV	Working Inverse Voltage	75 V
I_O	Average Rectified Current	200 mA
I_f	DC Forward Current	300 mA
i_f	Recurrent Peak Forward Current	400 mA
i_f(surge)	Peak Forward Surge Current	
	Pulse Width = 1.0 s	1.0 A
	Pulse Width = 1.0 μs	4.0 A

PACKAGES

1N914	DO-35
1N916	DO-35
1N914A	DO-35
1N914B	DO-35
1N916A	DO-35
1N916B	DO-35
1N4148	DO-35
1N4149	DO-35
1N4446	DO-35
1N4447	DO-35
1N4448	DO-35
1N4449	DO-35
FDLL914	LL-34
FDLL916	LL-34
FDLL914A	LL-34
FDLL914B	LL-34
FDLL916A	LL-34
FDLL916B	LL-34
FDLL4148	LL-34
FDLL4149	LL-34
FDLL4446	LL-34
FDLL4447	LL-34
FDLL4448	LL-34
FDLL4449	LL-34

If you need this device in the SOT package, an electical equivalent is available. See FDSO1200 family.

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC		MIN	MAX	UNITS	TEST CONDITIONS
BV	Breakdown Voltage		100		V	I_R = 100 μA
			75		V	I_R = 5.0 μA
I_R	Reverse Current			25	nA	V_R = 20 V
				50	μA	V_R = 20 V, T_A = 150°C
				5.0	μA	V_R = 75 V
V_F	Forward Voltage	1N914B, 1N4448	0.62	0.72	V	I_F = 5.0 mA
		1N916B, 1N4449	0.63	0.73	V	I_F = 5.0 mA
		1N914, 1N916, 1N4148, 1N4149		1.0	V	I_F = 10 mA
		1N914A, 1N916A, 1N4446, 1N4447		1.0	V	I_F = 20 mA
		1N916B, 1N4449		1.0	V	I_F = 30 mA
		1N914B, 1N4448		1.0	V	I_F = 100 mA
t_{rr}	Reverse Recovery Time			4.0	ns	I_f = 10 mA, V_r = 6.0 V, R_L = 100 Ω Rec. to 1.0 mA

NOTES:
1. Maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
3. For family characteristic curves, refer to Chapter 4, D4.

1N/FDLL914/A/B/916/A/B
1N/FDLL4148/4149/4446
1N/FDLL4447/44448/4449

T-03-09

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC		MIN	MAX	UNITS	TEST CONDITIONS
C	Capacitance	1N914, 1N914A 1N914B, 1N4148 1N4446, 1N4447		4.0	pF	V_R = 0, f = 1 MHz
		1N916, 1N916A 1N916B, 1N4149 1N4448, 1N4449		2.0	pF	V_R = 0, f = 1 MHz
V_{fr}	Peak Forward Recovery Voltage	1N914, 1N916 1N914B, 1N916B 1N4448, 1N4449		2.5	V	50 mA Peak Square Wave, 0.1 μs pulse width, 5 kHz - 100 kHz rep. rate
RE	Rectification Efficiency	1N914A, 1N914B 1N916A, 1N916B	45		%	2.0 V rms, f = 100 MHz

FAIRCHILD
A Schlumberger Company

1N957 through 1N973

T-11-11

500 mW Silicon Planar Zener Diodes

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

Storage Temperture Range	−65°C to +200°C
Maximum Junction Operating Temperature	+175°C
Lead Temperature	+260°C

Power Dissipation (Note 2)

Maximum Total Power Dissipation at 25°C Ambient	500 mW
Linear Power Derating Factor (from 25°C)	3.33 mW/°C

PACKAGES

All Devices DO-35

ELECTRICAL CHARACTERISTICS (25°C Ambient)

SYMBOL	V_Z	Z_Z	I_{ZT}	Z_{ZK}	I_{ZK}	I_R	V_{RT}			TC	I_{ZM}
Characteristics	Nominal Zener Voltage (Note 3) @I_{ZT}	Maximum Zener Impedance (Note 4) @I_{ZT}	Test Current	Maximum Zener Knee Impedance (Note 4) @I_{ZK}	Test Current	Maximum Reverse Current @V_{RT}	. Test Voltage ±20% V_Z Tolerance	±10% V_Z Tolerance	±5% V_Z Tolerance	Typical Temperature Coefficient of V_Z	Maximum Zener Current (Note 5)
UNIT	V	Ω	mA	Ω	mA	μA	V	V	V	%/°C	mA
IN957	6.8	4.5	18.5	700	1.0	150	4.4	4.9	5.2	+0.050	47
IN958	7.5	5.5	16.5	700	0.5	75	4.8	5.4	5.7	+0.058	42
IN959	8.2	6.5	15.0	700	0.5	50	5.2	5.9	6.2	+0.062	38
IN960	9.1	7.5	14.0	700	0.5	25	5.8	6.6	6.9	+0.068	35
IN961	10.0	8.5	12.5	700	0.25	10	6.4	7.2	7.6	+0.072	32
IN962	11.0	9.5	11.5	700	0.25	5.0	7.0	8.0	8.4	+0.073	28
IN963	12.0	11.5	10.5	700	0.25	5.0	7.6	8.6	9.1	+0.076	26
IN964	13.0	13.0	9.5	700	0.25	5.0	8.3	9.4	9.9	+0.079	24
IN965	15.0	16.0	8.5	700	0.25	5.0	9.6	10.8	11.4	+0.082	21
IN966	16.0	17.0	7.8	700	0.25	5.0	10.2	11.5	12.2	+0.083	19
IN967	18.0	21.0	7.0	750	0.25	5.0	11.5	13.0	13.7	+0.085	17
IN968	20.0	25.0	6.2	750	0.25	5.0	12.8	14.4	15.2	+0.086	15
IN969	22.0	29.0	5.6	750	0.25	5.0	14.0	15.8	16.7	+0.087	14
IN970	24.0	33.0	5.2	750	0.25	5.0	15.4	17.3	18.2	+0.088	13
IN971	27.0	41.0	4.6	750	0.25	5.0	17.2	19.4	20.6	+0.090	11
IN972	30.0	49.0	4.2	1000	0.25	5.0	19.2	21.6	22.8	+0.091	10
IN973	33.0	58.0	3.8	1000	0.25	5.0	21.1	23.8	25.1	±0.092	9.2

NOTES
1. These ratings are limiting values above which the serviceability of the diode may be impaired
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation
3. Type numbers without suffix have ±20% tolerance on nominal V_Z.
   Type numbers with suffix A have ±10% tolerance on nominal V_Z.
   Type numbers with suffix B have ±5% tolerance on nominal V_Z.
4. The Zener impedances Z_Z and Z_{ZK} are derived by superimposing a 60 Hz signal on test currents I_{ZT} and I_{ZK}, having an RMS value of 10% of the d.c. value of I_{ZT} and I_{ZK} respectively
5. Maximum Zener Curent (I_{ZM}) is based on the maximum Zener voltage of a 20% tolerance unit.
6. For product family characteristic curves, refer to Chapter 4, D13

FAIRCHILD
A Schlumberger Company

1N3064/4305/4454 T-03-09
FDLL3064/4305/4454

Ultra Fast Low Capacitance Diodes

- **C...2.0 pF @ V_R = 0, f = 1.0 MHz**
- **t_{rr}...4.0 ns @ I_f = 10 mA, I_r = 10 mA, V_r = 1.0 V**
- **BV...75 V (MIN)**

PACKAGES

1N3064	DO-35
1N4305	DO-35
1N4454	DO-35
FDLL3064	LL-34
FDLL4305	LL-34
FDLL4454	LL-34

If you need this device in the SOT package, an electical equivalent is available. See FDSO1200 family.

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures	
Storage Temperature Range	−65°C to +200°C
Max Junction Operating Temperature	+175°C
Lead Temperature	+260°C
Power Dissipation (Note 2)	
Maximum Total Dissipation at 25°C	500 mW
Linear Derating Factor (from 25°C)	3.33 mW/°C

Maximum Voltages and Currents

WIV	Working Inverse Voltage	50 V
I_O	Average Rectified Current	100 mA
I_F	Forward Current Steady State	300 mA
i_f	Recurrent Peak Forward Current	400 mA
i_f (surge)	Peak Forward Surge Current	
	Pulse Width = 1.0 s	1.0 A
	Pulse Width = 1.0 μs	4.0 A

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC		MIN	MAX	UNITS	TEST CONDITIONS
V_F	Forward Voltage		0.610	0.710	V	I_F = 2.0 mA
			0.550	0.650	V	I_F = 1.0 mA
			0.505	0.575	V	I_F = 250 μA
		1N3064, 1N4454		1.0	V	I_F = 10 mA
		1N4305	0.70	0.85	V	I_F = 10 mA
I_R	Reverse Current			0.1	μA	V_R = 50 V
				100	μA	V_R = 50 V, T_A = 150°C
BV	Breakdown Voltage		75		V	I_R = 5.0 μA
t_{rr}	Reverse Recovery Time (Note 3)	1N4305		2.0	ns	I_f = 10 mA, V_r = 6.0 V, R_L = 100 Ω
		1N3064, 1N4305, 1N4454		4.0	ns	I_f = I_r = 10 mA, R_L = 100 Ω, V_r = 1.0 V
C	Capacitance			2.0	pF	V_R = 0, f = 1.0 MHz
RE	Rectification Efficiency (Note 4)		45		%	f = 1.0 MHz
$\Delta V_F/°C$	Forward Voltage Temperature Coefficient (Note 5)			3.0	mV/°C	

NOTES:
1. The maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
3. Recovery to 1.0 mA.
4. Rectification efficiency is defined as the ratio of dc load voltage to peak rf input voltage to the detector circuit, measured with 2.0 V rms input to the circuit. Load resistance 5.0 Ω, load capacitance 20 pF
5. This value for $\Delta V_F/°C$ is a typical value not a minimum or maximum.
6. For product family characteristic curves, refer to Chapter 4, D4.

FAIRCHILD
A Schlumberger Company

1N3070/4938
FDLL3070/4938

T-03-09

High Speed High Conductance Diodes

- **BV...200 V (MIN)**
- **I_R...100 nA (MAX)**

PACKAGES

1N3070	DO-35
1N4938	DO-35
FDLL3070	LL-34
FDLL4938	LL-34

If you need this device in the SOT package, an electical equivalent is available. See FDSO1400 family.

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

Storage Temperature Range	−65°C to +200°C
Max Junction Operating Temperature	+175°C
Lead Temperature	+260°C

Power Dissipation (Note 2)

Maximum Total Dissipation at 25°C Ambient	500 mW
Linear Derating Factor (from 25°C)	3.33 mW/°C

Maximum Voltage and Currents

WIV	Working Inverse Voltage	175 V
I_O	Average Rectified Current	200 mA
I_F	Forward Current Steady State DC	500 mA
i_f	Recurrent Peak Forward Current	600 mA
i_f (surge)	Peak Forward Surge Current	
	Pulse Width = 1.0 s	1.0 A
	Pulse Width = 1.0 μs	4.0 A

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
I_R	Reverse Current		100 100	nA μA	V_R = 175 V V_R = 175 V, T_A = 150°C
BV	Breakdown Voltage	200		V	I_R = 100 μA
V_F	Forward Voltage		1.0	V	I_F = 100 mA
C	Capacitance		5.0	pF	V_R = 0, f = 1.0 MHz
t_{rr}	Reverse Recovery Time (Note 3)		50	ns	I_f = I_r = 30 mA, R_L = 100Ω
RE	Rectification Efficiency (Note 4)	35		%	f = 100 MHz

NOTES:
1. The maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
3. Recovery to 1.0 mA.
4. Rectification efficiency is defined as the ratio of dc load voltage to peak rf input voltage to the detector circuit, measured with 2.0 V rms input to the circuit. Load resistance: 5.0 kΩ, load capacitance 20 pF.
5. 1N3070 and 1N4938 are electrically and mechanically identical.
6. For product family characteristic curves, refer to Chapter 4, D1.

FAIRCHILD
A Schlumberger Company

1N3595/6099 T-01-09
FDLL3595/6099
High Conductance Low Leakage Diodes

- **BV...150 V (MIN) @ 100 μA**
- **V_F...1.0 V @ 200 mA**

PACKAGES

1N3595	DO-35
1N6099	DO-35
FDLL3595	LL-34
FDLL6099	LL-34

If you need this device in the SOT package, an electical equivalent is available. See FDSO1500 family.

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

Storage Temperature Range	−65°C to +200°C
Max Junction Operating Temperature	+175°C
Lead Temperature	+260°C

Power Dissipation (Note 2)

Maximum Total Dissipation at 25°C Ambient	500 mW
Linear Derating Factor (From 25°C)	3.33 mW/°C

Maximum Voltage and Currents

WIV	Working Inverse Voltage	125 V
I_O	Average Rectified Current	200 mA
I_F	Forward Current Steady State	500 mA
i_f	Peak Repetitive Forward Current	600 mA
i_f (surge)	Peak Forward Surge Current	
	Pulse Width = 1.0 s	1.0 A
	Pulse Width = 1.0 μs	4.0 A

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	MIN	MAX	UNITS	TEST CONDITIONS
V_F	Forward Voltage	0.83	1.0	V	I_F = 200 mA
		0.79	0.92	V	I_F = 100 mA
		0.75	0.88	V	I_F = 50 mA
		0.65	0.80	V	I_F = 10 mA
		0.60	0.75	V	I_F = 5.0 mA
		0.52	0.68	V	I_F = 1.0 mA
I_R	Reverse Current		1.0	nA	V_R = 125 V
			300	nA	V_R = 30 V, T_A = 125°C
			500	nA	V_R = 125 V, T_A = 125°C
			3.0	μA	V_R = 125 V, T_A = 150°C
t_{rr}	Reverse Recovery Time		3.0	μs	I_F = 10 mA, V_r = 3.5 V, R_L = 1.0 kΩ
C	Capacitance		8.0	pF	V_R = 0, f = 1.0 MHz
BV	Breakdown Voltage	150		V	I_R = 100 μA

NOTES:
1. The maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
3. 1N3595 and IN6099 are electrically and mechanically identical.
4. For product family characteristic curves, refer to Chapter 4, D2.

FAIRCHILD
A Schlumberger Company

1N3600/FDLL3600 T-03-09
1N4150/FDLL4150
1N4450/FDLL4450
High Conductance Ultra Fast Diodes

- t_{rr}...4.0 ns (MAX)
- V_F...1.0 V (MAX) @ 200 mA

PACKAGES

1N3600	DO-35
1N4150	DO-35
1N4450	DO-35
FDLL3600	LL-34
FDLL4150	LL-34
FDLL4450	LL-34

If you need this device in the SOT package, an electical equivalent is available. See FDSO1200 family.

ABSOLUTE MAXIMUM RATINGS (Note 1)

Temperatures

Storage Temperature Range	−65°C to +200°C
Max Junction Operating Temperature	+175°C
Lead Temperature	+260°C

Power Dissipation (Note 2)

Max Total Power Dissipation at 25°C Ambient	500 mW
Linear Derating Factor (from 25°C)	3.33 mW/°C

Maximum Voltages and Currents		**1N3600**	**1N4150**	**1N4450**
WIV	Working Inverse Voltage	50 V	50 V	30 V
I_O	Average Rectified Current	200 mA	200 mA	200 mA
I_F	DC Forward Current	400 mA	400 mA	400 mA
i_f	Recurrent Peak Forward Current	600 mA	600 mA	600 mA
$i_{f(surge)}$	Peak Forward Surge Current			
	Pulse Width = 1.0 s	1.0 A	1.0 A	1.0 A
	Pulse Width = 1.0 μs	4.0 A	4.0 A	4.0 A

ELECTRICAL CHARACTERISTICS (25°C Ambient Temperature unless otherwise noted)

SYMBOL	CHARACTERISTIC	1N3600 1N4150 MIN	1N3600 1N4150 MAX	1N4450 MIN	1N4450 MAX	UNITS	TEST CONDITIONS
BV	Breakdown Voltage	75				V	I_R = 5.0 μA
				40		V	I_R = 5.0 μA
I_R	Reverse Current		100			nA	V_R = 50 V
					50	nA	V_R = 30 V
			100			μA	V_R = 50 V, T_A = 150°C
					50	μA	V_R = 30 V, T_A = 150°C
V_F	Forward Voltage			0.42	0.54	V	I_F = 0.1 mA
		0.54	0.62	0.52	0.64	V	I_F = 1.0 mA
		0.66	0.74	0.64	0.76	V	I_F = 10 mA
		0.76	0.86			V	I_F = 50 mA
		0.82	0.92	0.80	0.92	V	I_F = 100 mA
		0.87	1.0		1.0	V	I_F = 200 mA
C	Capacitance		2.5		4.0	pF	V_R = 0, f = 1.0 MHz
t_{rr}	Reverse Recovery Time (Note 3)		4.0			ns	I_f = I_r = 10 mA to 200 mA, R_L = 100 Ω
					4.0	ns	I_f = I_r = 10 mA, R_L = 100 Ω
			6.0			ns	I_f = I_r = 200 mA to 400 mA, R_L = 100 Ω
t_{fr}	Forward Recovery Time		10			ns	I_f = 200 mA, t_r = 0.4 ns, V_{fr} = 1.0 V

NOTES:
1. Maximum ratings are limiting values above which life or satisfactory performance may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty-cycle operation.
3. Recovery to 0.1 I_f.
4. For family characteristic curves, refer to Chapter 4, D4.