

# High Voltage Diodes - Axial Lead

Original Released: 01-01-08  
Revised Date: 04-24-09

**0.01A - 1.50A • 30ns - 50ns • Hermetic**

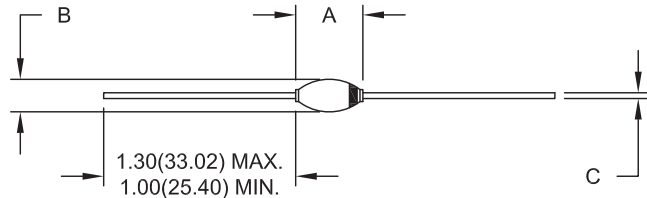
## ELECTRICAL CHARACTERISTICS AND MAXIMUM RATINGS

Part Number	Working Reverse Voltage (Vrwm)	Average Rectified Current (Io)		Reverse Current @ Vrwm (Ir)		Forward Voltage (Vf)		1 Cycle Surge Current tp=8.3ms (Ifsm)	Repetitive Surge Current (Ifrm)	Reverse Recovery Time (Trr)	Thermal Impedance $\theta_{J-L}$			Junction Cap. @50VDC @ 1kHz (Cj)
		55°C(1)	100°C(2)	25°C	100°C	25°C					25°C	25°C	25°C	
	Volts	mA	mA	$\mu$ A	$\mu$ A	Volts	mA	Amps	Amps	ns	°C/W	°C/W	°C/W	pF
M50FF3	5000	40	20	0.1	10	12.5	40	2.0	0.4	30 (3)	18	30	50.0	1.0
M100FF3	10000	20	10	0.1	10	25.0	20	1.0	0.2	30 (3)	18	30	50.0	0.5
M50FF5	5000	40	20	0.1	10	12.5	40	2.0	0.4	50 (3)	18	30	50.0	1.0
M100FF5	10000	20	10	0.1	10	25.0	20	1.0	0.2	50 (3)	18	30	50.0	0.5
M160FF5	16000	10	5	0.1	10	50.0	10	0.5	0.1	50 (3)	33	45	65.0	0.5
X20FF3	2000	420	210	1.0	20	7.5	420	16.0	3.0	30 (4)	5	12	21.5	4.0
X50FF3	5000	150	75	1.0	20	12.5	150	10.0	1.0	30 (4)	5	12	21.5	3.0
X100FF3	10000	80	40	1.0	20	25.0	80	2.0	0.5	30 (4)	5	12	21.5	2.0
X150FF3	15000	50	25	1.0	20	37.5	50	1.6	0.3	30 (4)	5	12	21.5	2.0
X20FF5	2000	420	210	1.0	20	7.5	420	16.0	3.0	50 (4)	5	12	21.5	4.0
X50FF5	5000	150	75	1.0	20	12.5	150	10.0	1.0	50 (4)	5	12	21.5	3.0
X100FF5	10000	80	40	1.0	20	25.0	80	2.0	0.5	50 (4)	5	12	21.5	2.0
X150FF5	15000	50	25	1.0	20	37.5	50	1.6	0.3	50 (4)	5	12	21.5	2.0
Z20FF3	2000	1000	750	1.0	25	6.0	750	65.0	10.0	30 (5)	3	6	12.0	20.0
Z50FF3	5000	360	180	1.0	25	12.5	360	20.0	4.0	30 (5)	3	6	12.0	16.0
Z100FF3	10000	180	90	1.0	25	25.0	180	10.0	2.0	30 (5)	3	6	12.0	8.00
Z20FF5	2000	1000	750	1.0	25	6.0	750	65.0	10.0	50 (5)	3	6	12.0	20.0
Z50FF5	5000	360	180	1.0	25	12.5	360	20.0	4.0	50 (5)	3	6	12.0	16.0
Z100FF5	10000	180	90	1.0	25	25.0	180	10.0	2.0	50 (5)	3	6	12.0	8.0
1N6836	2000	1000	750	1.0	25	6.0	1000	40.0	5.0	30 (5)	3	6	12.0	20.0
1N6837	5000	500	250	1.0	25	12.0	500	20.0	4.0	30 (5)	3	6	12.0	16.0
1N6838	2000	1500	1000	1.0	25	4.5	1500	60.0	10.0	50 (5)	3	6	12.0	20.0
1N6839	5000	600	500	1.0	25	10.0	600	30.0	6.0	50 (5)	3	6	12.0	16.0

(1)TL=55°C L=0.375" (2)TL=100°C L=0.375" (3)If=12.5mA, Ir=25mA, Irr=6.3mA (4) If=125mA, Ir=250mA, Irr=63mA  
(5) If=0.5A, Ir=1.0A, Irr=0.25A \*Op.Temp.= -65°C to +175°C Stg.Temp.= -65°C to +200°C



Part	A	B	C
M50FF(X) M100FF(X)	.300(7.62) MAX.	.130(3.30) MAX.	.020 ±.003 (.51 ±.08)
M160FF(X)	.350(8.89) MAX.		
X25FF(X) X50FF(X) X100FF(X) X150FF(X)	.350(8.89) MAX.	.170(4.32) MAX.	.030 ±.003 (.77 ±.08)
Z20FF(X) Z50FF(X) 1N6836 1N6837 1N6838 1N6839	.350(8.89) MAX.	.215(5.46) MAX.	.040 ±.003 (1.02 ±.08)
Z100(X)	.400(10.16) MAX.		



Dimensions: In. (mm) • All temperatures are ambient unless otherwise noted. • Data subject to change without notice.



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