



Micro Commercial Components  
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# 1F10 THRU 1F18

## 0.5 Amp Fast Recovery Rectifier 1000 to 1800 Volts

### Features

- High Current Capability
- Low Leakage
- Fast Switching for High Efficiency
- Low Forward Voltage Drop
- High Reliability

### Maximum Ratings

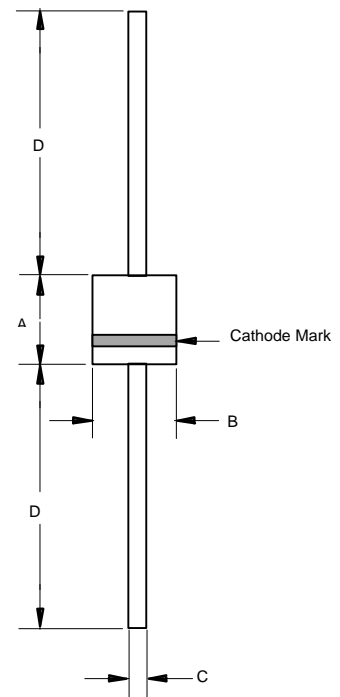
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- For capacitive load. Derate current by 20%

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1F10	1000V	700V	1000V
1F12	1200V	840V	1200V
1F14	1400V	980V	1400V
1F15	1500V	1050V	1500V
1F16	1600V	1120V	1600V
1F18	1800V	1260V	1800V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Rectified Current	$I_o$	0.5A	$T_A = 25^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	25A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.8V	$I_{FM} = 0.5\text{A}; T_C = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu\text{A}$	$T_C = 25^\circ\text{C}$
Typical Junction Capacitance	$C_J$	15pF	Measured at 1.0MHz, $V_R=4.0\text{V}$
Maximum Reverse Recovery Time	$t_{rr}$	300ns	$I_f=0.5\text{A}, I_r=1\text{A}, I_r=0.25\text{A}$

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DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.116	0.140	2.90	3.50	
B	0.091	0.102	2.30	2.60	
C	0.020	0.024	0.50	0.60	
D	0.787	-----	20.00	-----	

# 1F10 thru 1F18

## RATING AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

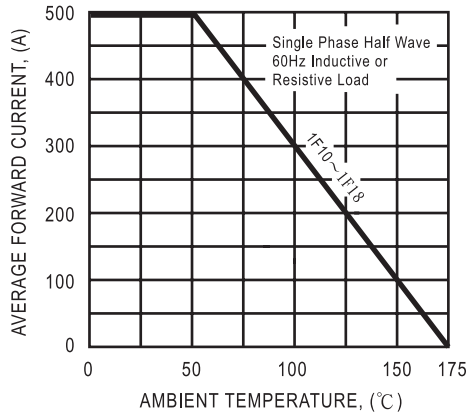


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

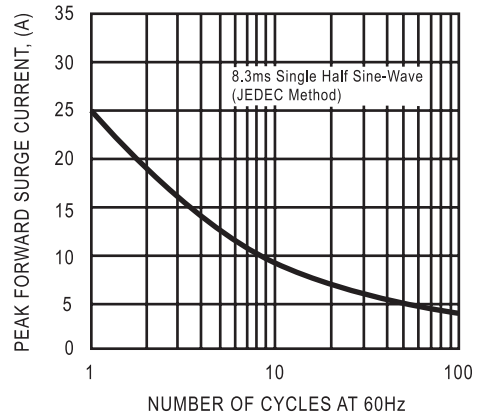


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

