



Micro Commercial Components

Micro Commercial Components  
 20736 Marilla Street Chatsworth  
 CA 91311  
 Phone: (818) 701-4933  
 Fax: (818) 701-4939

**1F10  
 THRU  
 1F18**

### Features

- Low Leakage Current
- Fast Switching for High Efficiency
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking : Cathode band and type number
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)

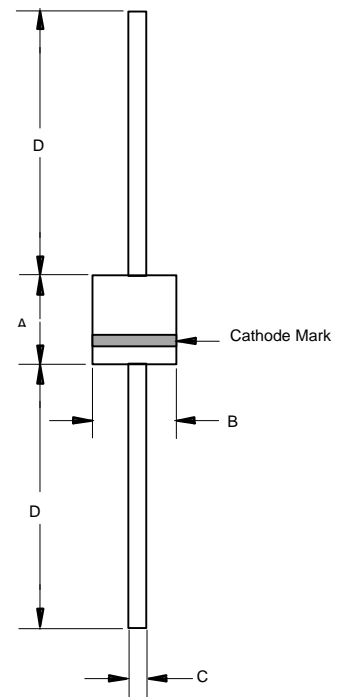
**0.5 Amp Fast  
 Recovery Rectifier  
 1000 to 1800 Volts**

### 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

R-1



### 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	$I_F=0.5\text{A}, I_R=1\text{A}, I_T=0.25\text{A}$

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	-----	

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

## RATING AND CHARACTERISTIC CURVES

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

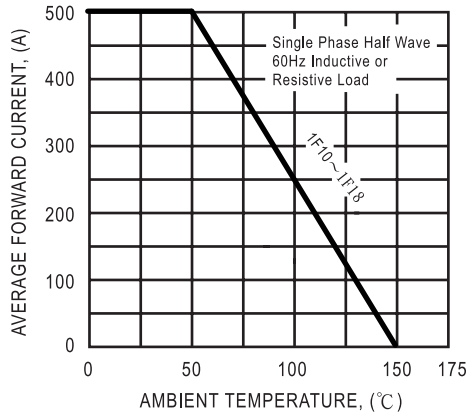


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

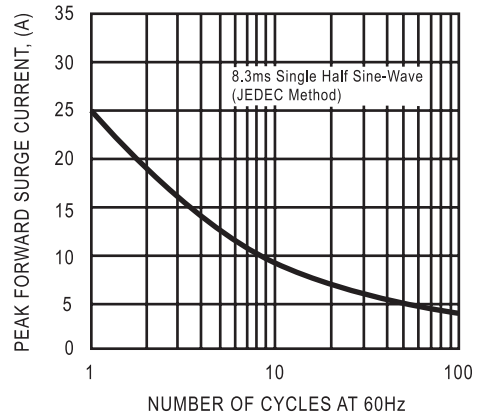
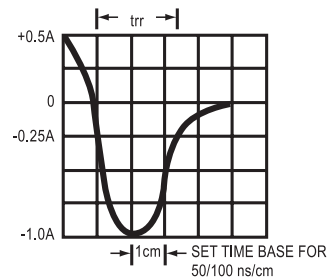
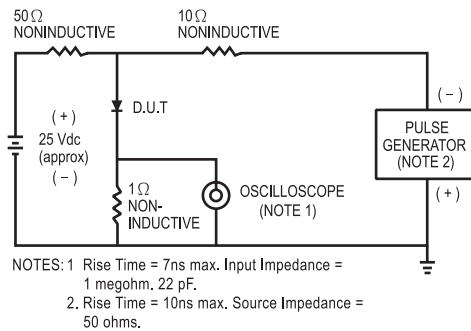


FIG. 3 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





Micro Commercial Components

## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel; 5Kpcs/Reel
(Part Number)-AP	Ammo Packing;3Kpcs/AmmoBox
(Part Number)-BP	Bulk;1Kpcs/Box

### \*\*\*IMPORTANT NOTICE\*\*\*

*Micro Commercial Components Corp.* reserve the right to make changes without further notice to any product herein to make corrections, modifications, enhancements, improvements, or other changes. *Micro Commercial Components Corp.* does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights, nor the rights of others. The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp.* and all the companies whose products are represented on our website, harmless against all damages.

### \*\*\*APPLICATIONS DISCLAIMER\*\*\*

Products offer by *Micro Commercial Components Corp.* are not intended for use in Medical, Aerospace or Military Applications.