



Micro Commercial Components



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**1F1  
THRU  
1F7**

## Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : Cathode band and type number
- Fast Switching for High Efficiency and Low Leakage
- Halogen free available upon request by adding suffix "-HF"

## Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- For capacitive load. Derate current by 20%
- Typical Thermal Resistance: 67°C/W Junction to Ambient.

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
1F1	50V	35V	50V
1F2	100V	70V	100V
1F3	200V	140V	200V
1F4	400V	280V	400V
1F5	600V	420V	600V
1F6	800V	560V	800V
1F7	1000V	700V	1000V

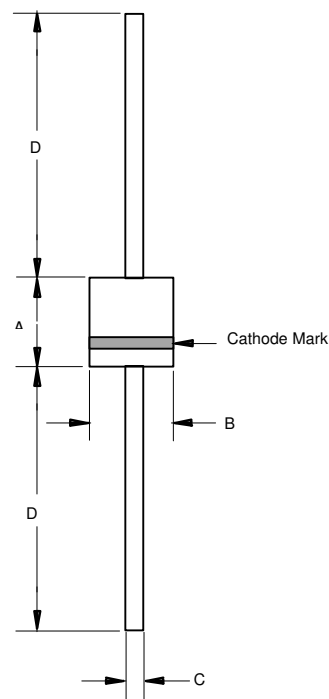
## Electrical Characteristics @25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0 A	$T_C = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.3V	$I_{FM} = 1.0\text{A};$ $T_C = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu\text{A}$ 500 $\mu\text{A}$	$T_C = 25^\circ\text{C}$ $T_C = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	12pF	Measured at 1.0MHz, $V_R=4.0\text{V}$
Maximum Reverse Recovery Time	$t_{rr}$	150ns 250ns 500ns	$I_F=0.5\text{A},$ $I_R=1\text{A},$ $I_T=0.25\text{A}$
1F1-1F4 1F5 1F6-1F7			

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

**1.0 Amp Fast  
Recovery Plastic  
Rectifier  
50 to 1000 Volts**

R-1



DIMENSIONS					
DIM	INCHES		MM		NOTE
	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	-----	

# 1F1 thru 1F7

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

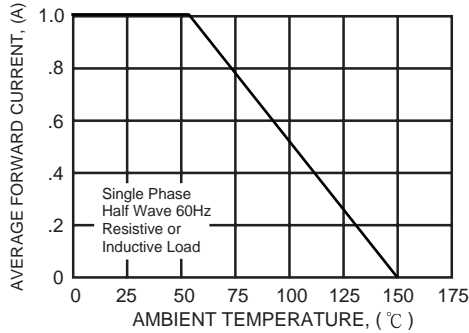


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

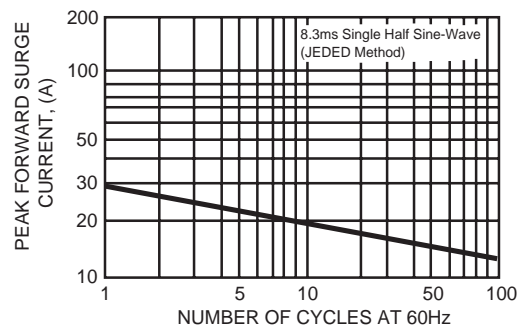


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

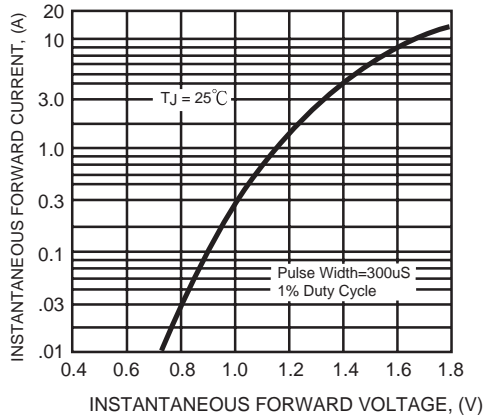


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

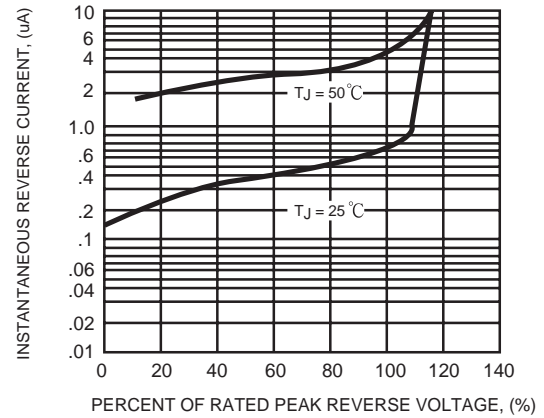


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

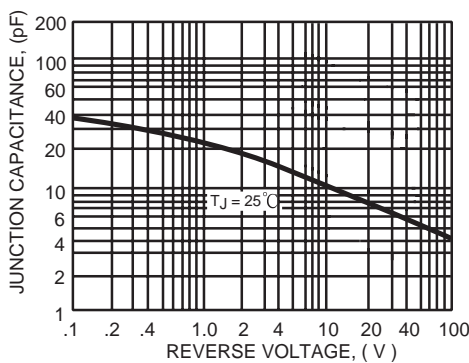
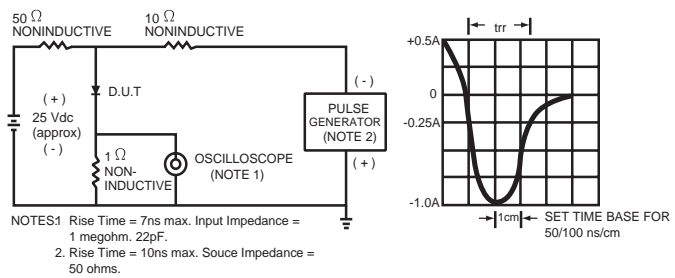


FIG. 6 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



## Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel
Part Number-AP	Ammo Packing: 3Kpcs/Ammo Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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