

## Features

- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- High Surge Forward Current Capability
- Glass Passivated Chip
- Halogen Free Available Upon Request By Adding Suffix "-HF"

# 10 Amp Super Fast Recovery Rectifier 400 Volts

## Maximum Ratings

- Operating Junction Temperature Range: -50°C to +150°C
- Storage Temperature Range: -50°C to +150°C
- Typical Thermal Resistance: 2°C/W Junction to Case

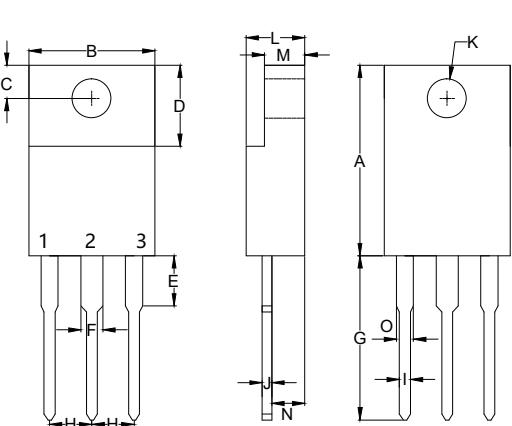
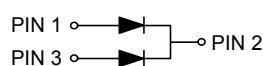
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SF1040FCT	SF1040FCT	400V	280V	400V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_C=90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	80A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	1.3V	$I_{FM}=5\text{A}$ $T_J=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu\text{A}$ 200 $\mu\text{A}$	$T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	50pF	Measure at 1MHz, $V_R=4.0\text{V}$
Maximum Reverse Recovery Time	$t_{rr}$	35ns	$I_F=0.5\text{A}$ ; $I_R=1.0\text{A}$ ; $I_{rr}=0.25\text{A}$

Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

## Internal Structure



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.567	0.642	14.40	16.30	
B	-----	0.421	-----	10.70	
C	0.085	0.128	2.15	3.25	
D	0.248	0.272	6.30	6.90	
E	-----	0.177	-----	4.50	
F	-----	0.071	-----	1.80	
G	0.500	0.539	12.70	14.20	
H	0.100		2.55		
I	-----	0.035	-----	0.90	
J	-----	0.032	-----	0.80	
K	0.102	0.150	2.60	3.80	Φ
L	-----	0.201	-----	5.10	
M	-----	0.140	-----	3.56	
N	0.083	0.126	2.10	3.20	
O	-----	0.071	-----	1.80	

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

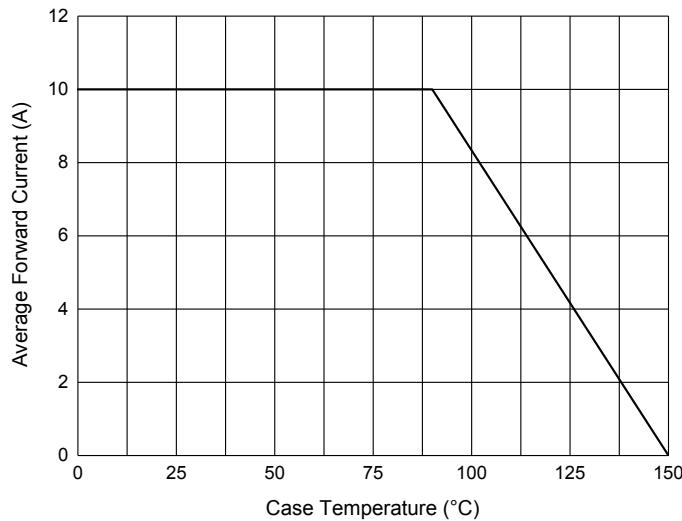


Fig. 3 - Typical Reverse Leakage Characteristics

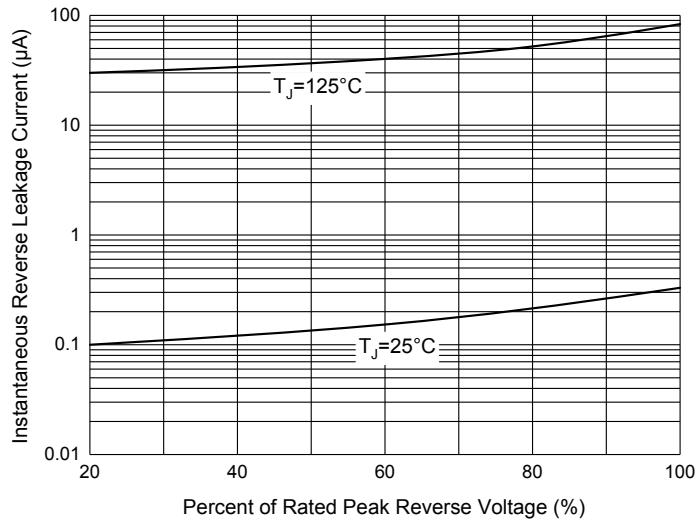


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

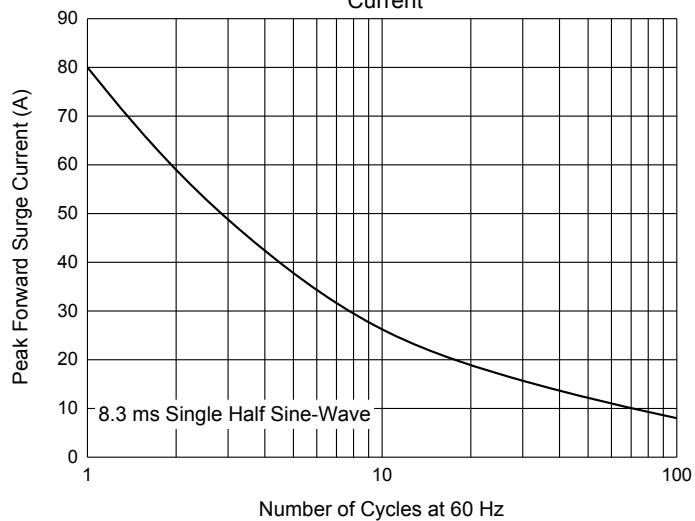
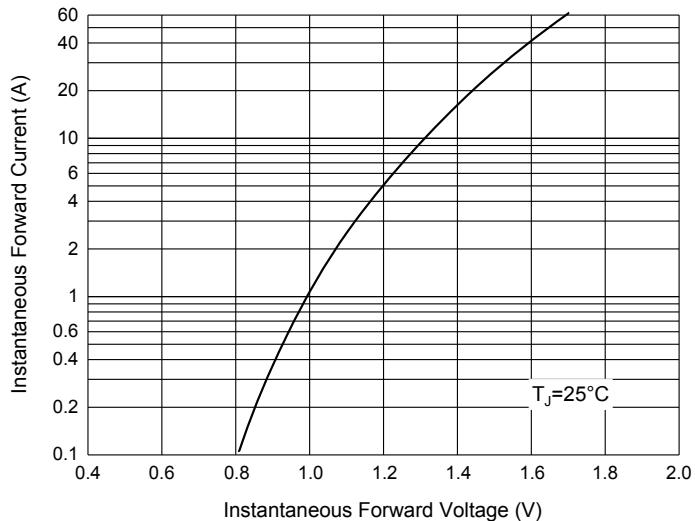


Fig. 4 - Typical Instantaneous Forward Characteristics



## Ordering Information

Device	Packing
Part Number-BP	Bulk:50pcs/Tube,1Kpcs/Box,5Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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