



Micro Commercial Components  
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# FST8120SM THRU FST81100SM

## Features

- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

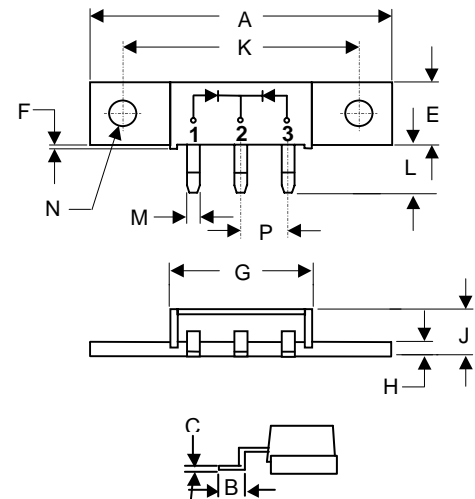
## 80 Amp Schottky Barrier Rectifier 20 to 100 Volts

## Maximum Ratings

- Operating Temperature: -40°C to +175°C
- Storage Temperature: -40°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FST8120SM	20V	14V	20V
FST8130SM	30V	21V	30V
FST8135SM	35V	24.5V	35V
FST8140SM	40V	28V	40V
FST8145SM	45V	31.5V	45V
FST8160SM	60V	42V	60V
FST8180SM	80V	56V	80V
FST81100SM	100V	70V	100V

## MINIMOD-SM



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	80 A	$T_c = 110^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	800A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	.50 V .75 V .84 V	$I_{FM} = 40.0A;$ $T_J = 25^\circ\text{C}$
FST8120SM-8145SM			
FST8160SM			
FST8180SM-81100SM			
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1.5mA 500mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$

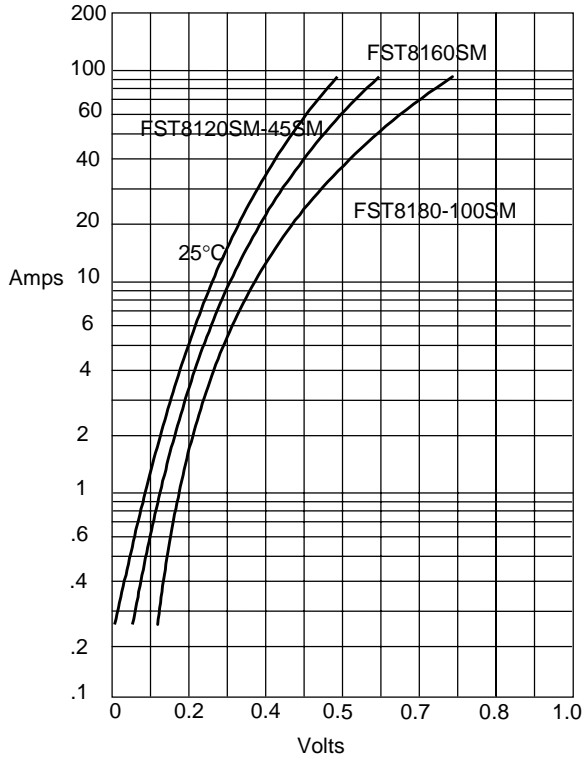
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.490	1.510	37.85	38.35	
B	.110	.120	2.79	3.04	
C	.027	.037	0.69	0.94	
E	.350	.370	8.89	9.40	
F	.015	.025	0.38	0.64	
G	.695	.715	17.65	18.16	
H	.088	.098	2.24	2.49	
J	.240	.260	6.10	6.60	
K	1.180	1.195	29.97	30.35	
L	.230	.250	5.84	6.35	
M	.065	.085	1.65	2.16	
N	.151	.161	3.84	4.09	Ø
P	.200	REF	5.08	REF	2PL

\*Pulse Test: Pulse Width 300µsec, Duty Cycle 2%

# FST8120SM thru FST81100SM

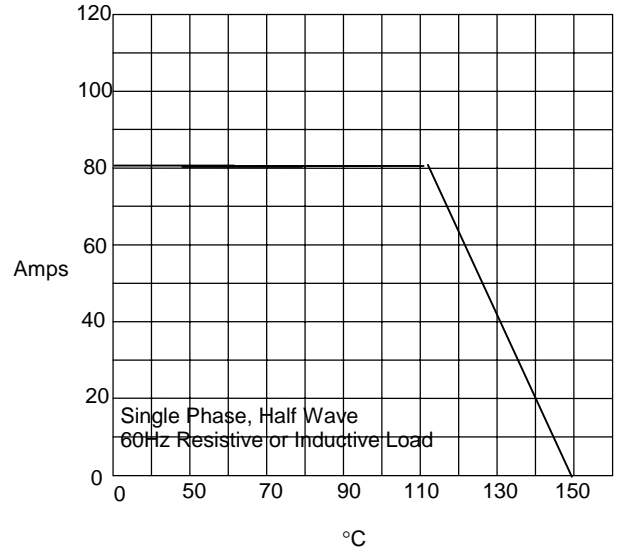


Figure 1  
Typical Forward Characteristics



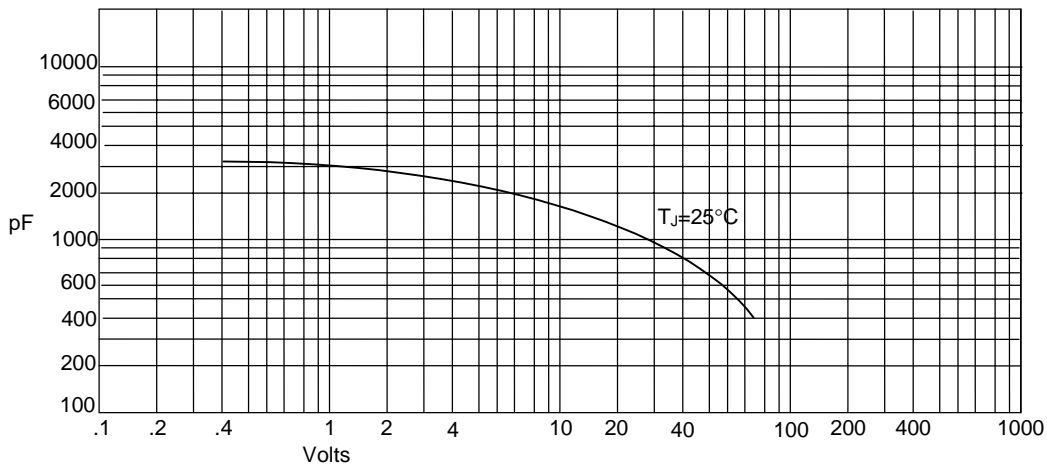
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Case Temperature - °C

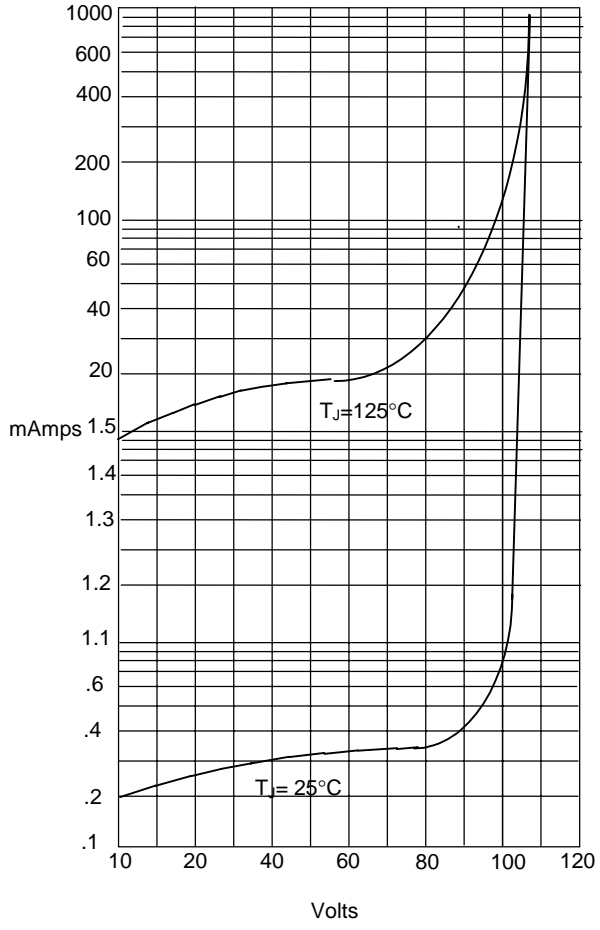
Figure 3  
Junction Capacitance



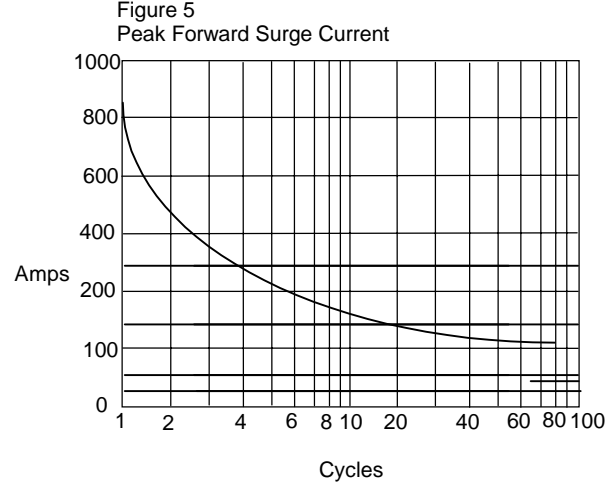
Junction Capacitance - pF versus  
Reverse Voltage - Volts



Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus Percent Of Rated Peak Reverse Voltage - Volts



Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles