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# FST8020 THRU FST8045

## Features

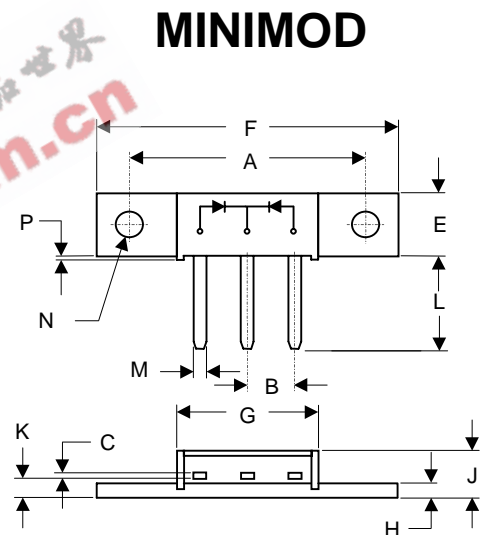
- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

## 80 Amp Schottky Barrier Rectifier 20 to 45 Volts

## Maximum Ratings

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

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FST8020	20V	14V	20V
FST8030	30V	21V	30V
FST8035	35V	24.5V	35V
FST8040	40V	28V	40V
FST8045	45V	31.5V	45V



## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	80 A	$T_A = 110^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	800A	8.3ms, half sine
Maximum Instantaneous Forward Voltage FST8020-8045	$V_F$	.63 V	$I_{FM} = 40.0\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	3mA 5@mA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Typical Junction Capacitance	$C_J$	2100pF	Measured at 1.0MHz, $V_R=5.0\text{V}$

DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	1.180	1.195	29.97	30.35	
B	.200	REF	5.08	REF	2PL
C	.027	.037	0.69	0.94	
E	.350	.370	8.89	9.40	
F	1.490	1.510	37.85	38.35	
G	.695	.715	17.65	18.16	
H	.088	.098	2.24	2.49	
J	.240	.260	6.10	6.60	
K	.115	.135	2.92	3.43	
L	.457	.477	11.61	12.12	
M	.065	.085	1.65	2.16	
N	.151	.161	3.84	4.09	∅
P	.015	.025	0.38	0.64	

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



Figure 1  
Typical Forward Characteristics

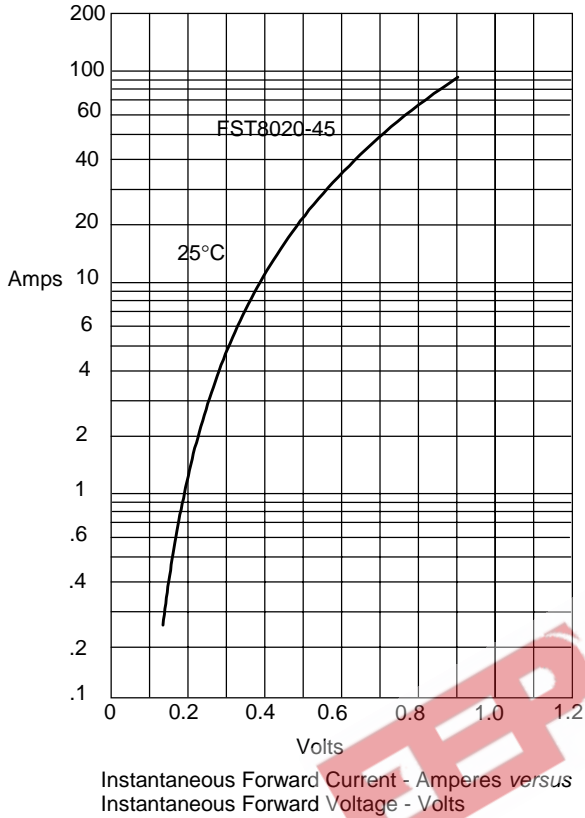


Figure 2  
Forward Derating Curve

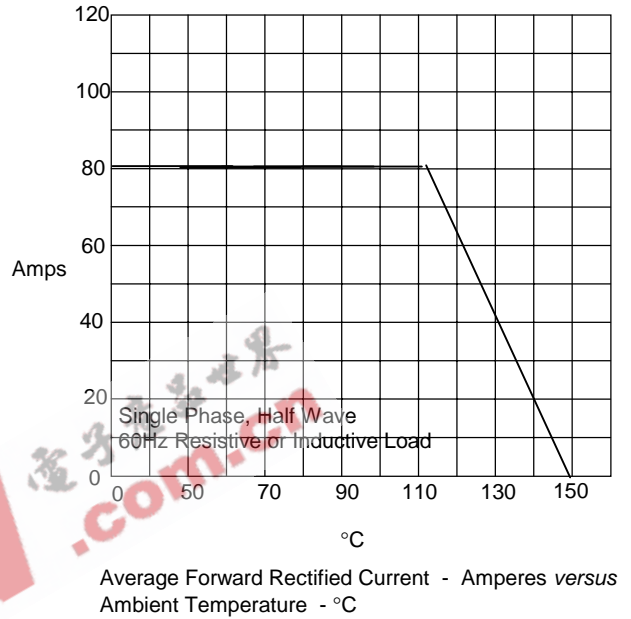


Figure 3  
Junction Capacitance

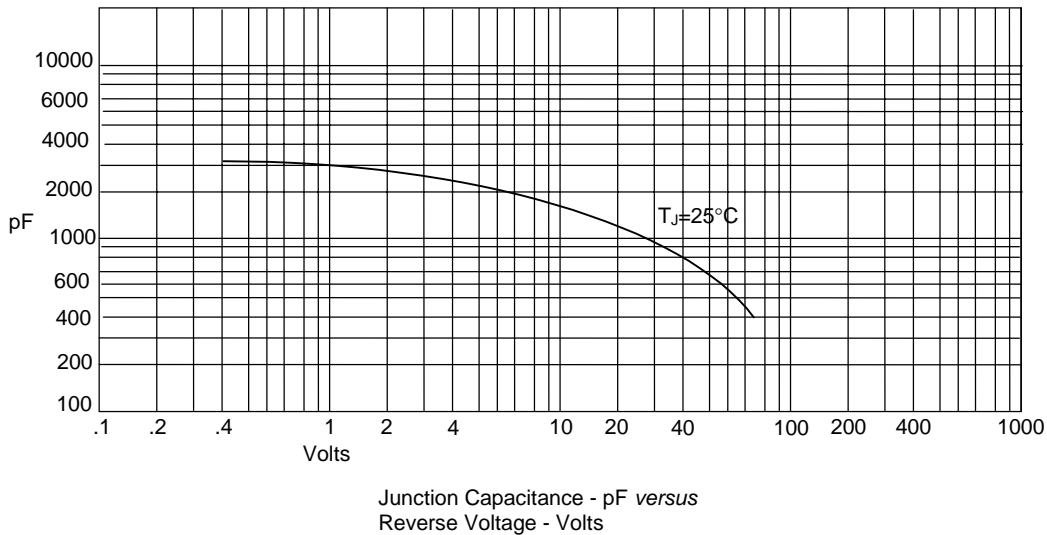
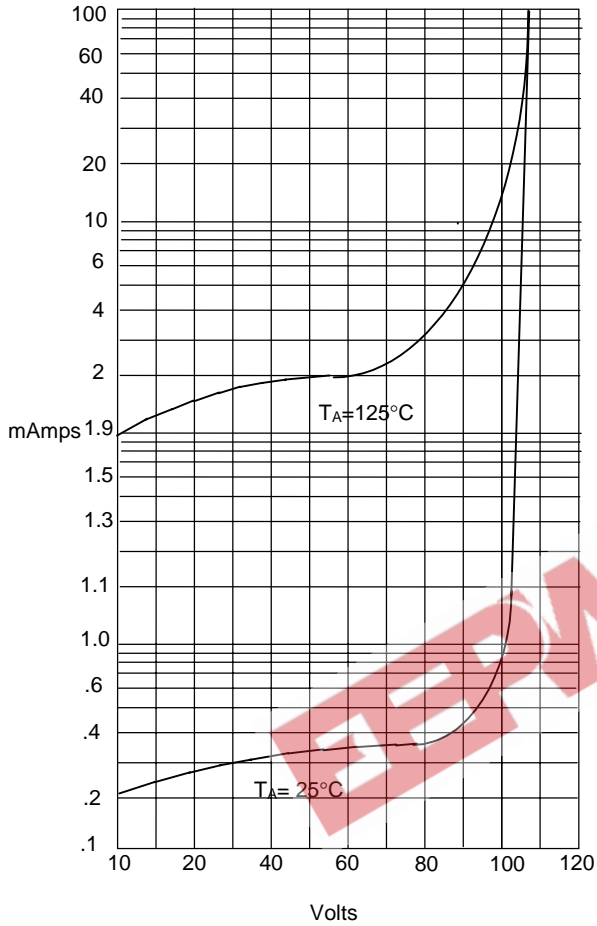


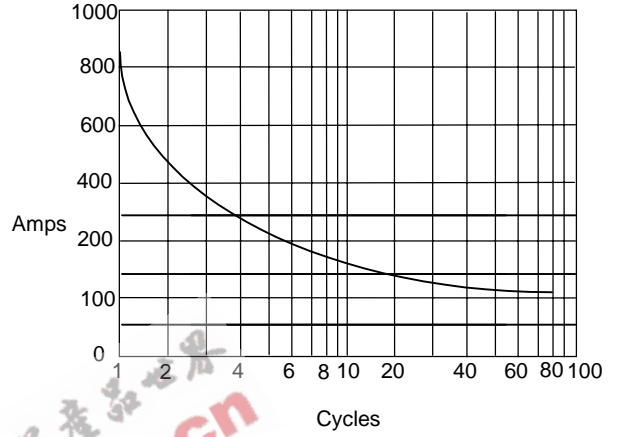


Figure 4  
Typical Reverse Characteristics



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

Figure 5  
Peak Forward Surge Current



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