

M.C.C.

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FST8020 THRU FST8045

Features

- Metal of silicon rectifier, majority carrier conduction
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

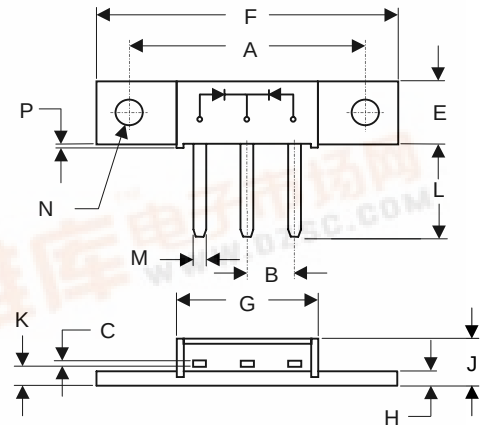
80 Amp Schottky Barrier Rectifier 20 to 45 Volts

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

MINIMOD



Electrical Characteristics @ 25°C Unless Otherwise Specified

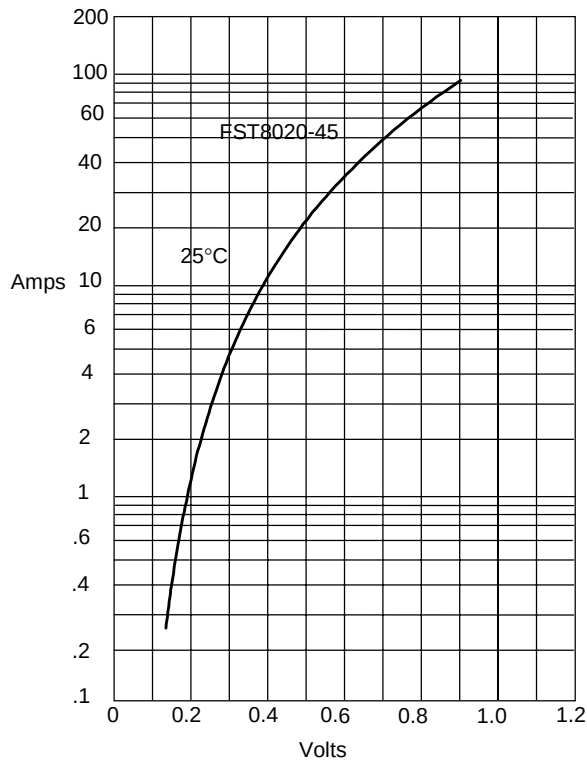
Average Forward Current	$I_{F(AV)}$	80 A	$T_A = 110^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	800A	8.3ms, half sine
Maximum Instantaneous Forward Voltage FST8020-8045	V_F	.63 V	$I_{FM} = 40.0\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	3 mA 500 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	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
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	

FST8020 thru FST8045

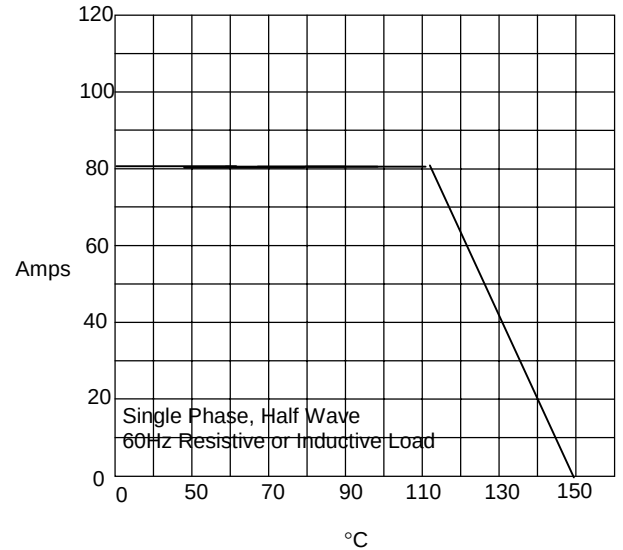


Figure 1
Typical Forward Characteristics



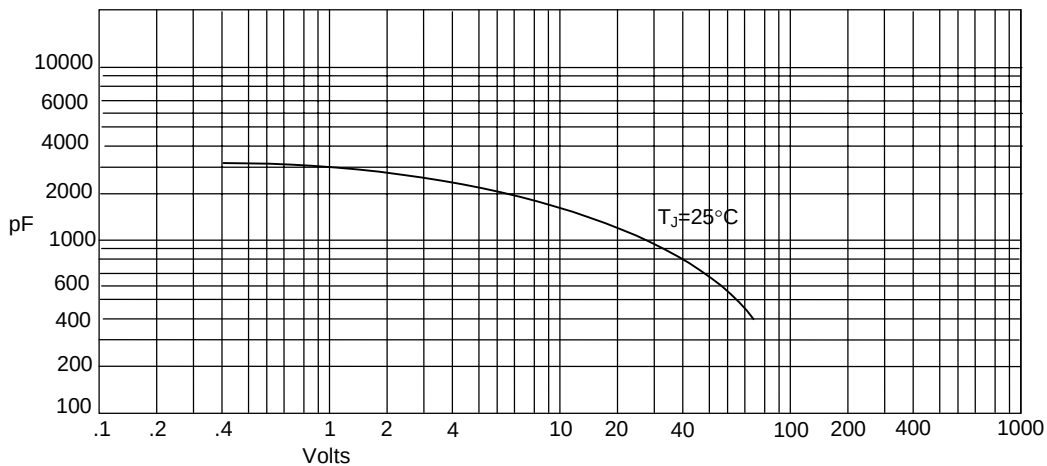
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

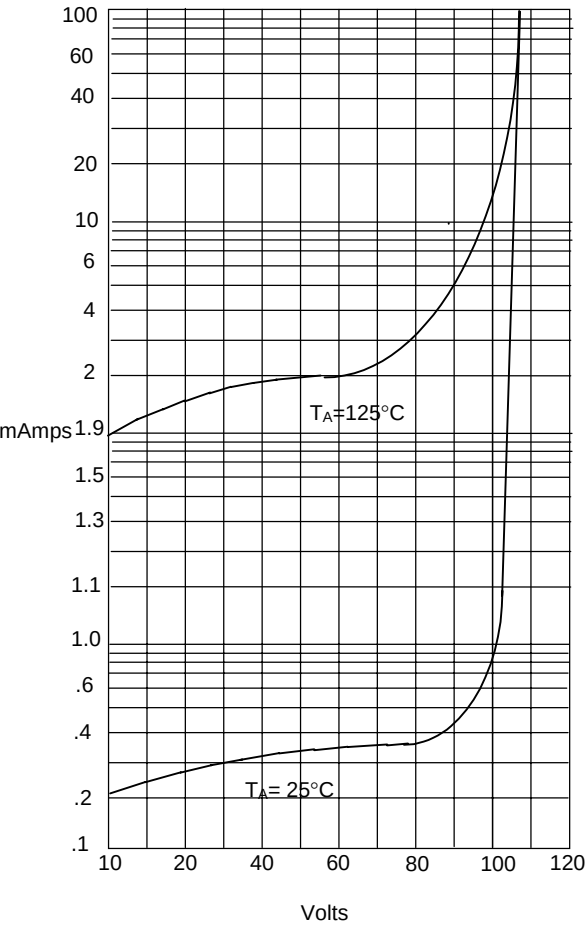
Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

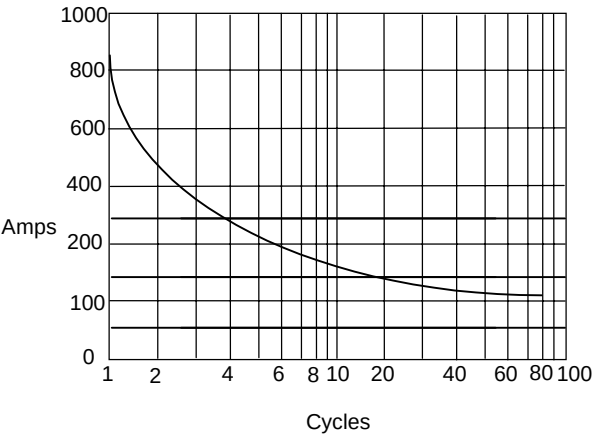


Figure 4
Typical Reverse Characteristics



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

Figure 5
Peak Forward Surge Current



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