

MCC

Micro Commercial Components
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FST12020 THRU FST120100

Features

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

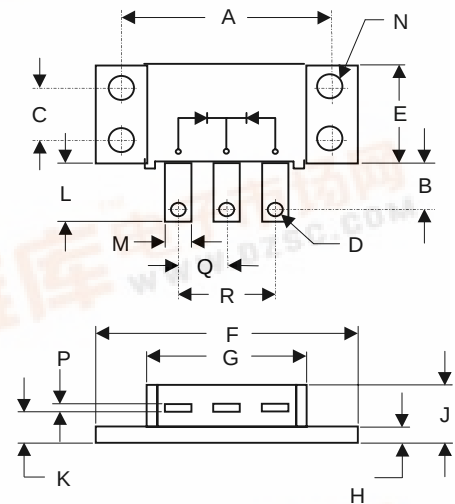
Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FST12020	20V	14V	20V
FST12030	30V	21V	30V
FST12035	35V	24.5V	35V
FST12040	40V	28V	40V
FST12045	45V	31.5V	45V
FST12060	60V	42V	60V
FST12080	80V	56V	80V
FST120100	100V	70V	100V

120 Amp Schottky Barrier Rectifier 20 to 100 Volts

POWERMOD



Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	120 A	$T_A = 135^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	1200A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F		$I_{FM} = 60.0A$; $T_A = 25^\circ\text{C}$
FST12020-12045		.63 V	
FST12060		.75 V	
FST12080-120100		.84 V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	2 mA	$T_A = 25^\circ\text{C}$
Typical Junction Capacitance	C_J	340pF	Measured at 1.0MHz, $V_R=4.0V$

DIM	INCH		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.995	2.005	50.67	50.93	
B	.330	.325	7.62	8.26	
C	.495	.505	12.57	12.83	
D	.182	.192	4.62	4.88	
E	.990	1.010	25.12	26.65	
F	1.490	1.510	37.85	38.35	
G	1.500	1.525	38.10	38.70	
H	.120	.130	3.05	3.30	
J	-----	.400	-----	10.16	
K	.240	.260	6.10	6.60	
L	.490	.510	12.45	12.95	
M	.330	.350	8.38	6.90	
N	.175	.195	4.45	4.95	Ø
P	.035	.045	0.89	1.14	
Q	.445	.455	11.30	11.56	
R	.890	.910	22.61	23.11	

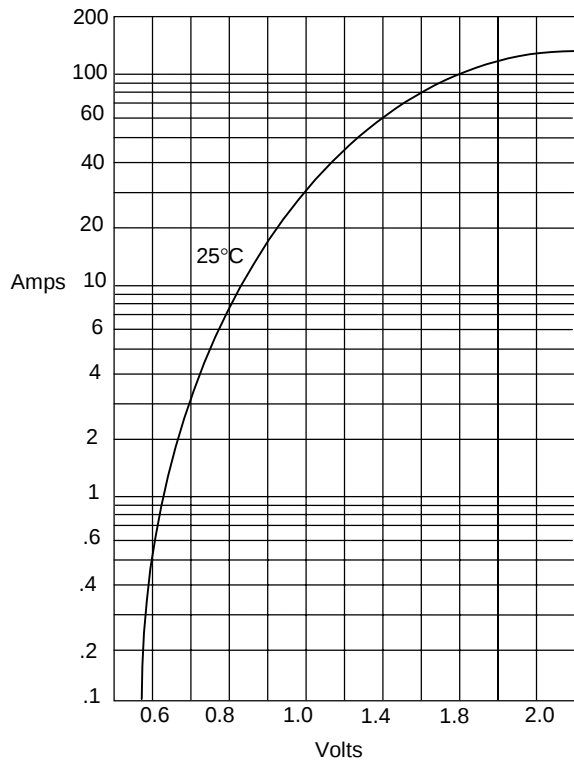


Pulse Test: Pulse Width 300μsec, Duty Cycle 1%

FST12020 thru FST120100

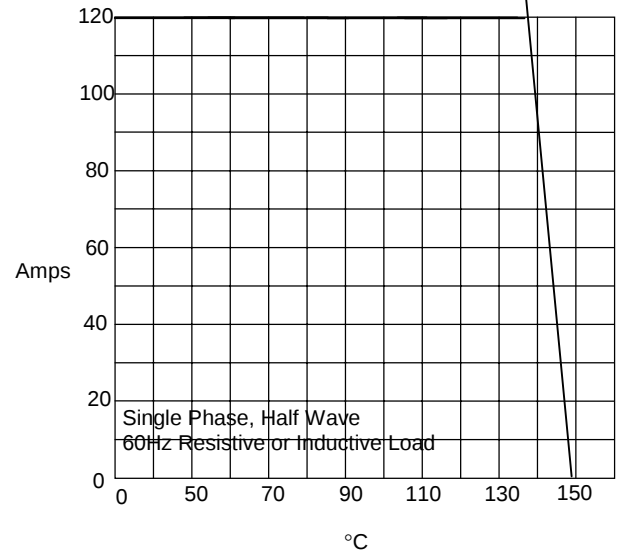


Figure 1
Typical Forward Characteristics



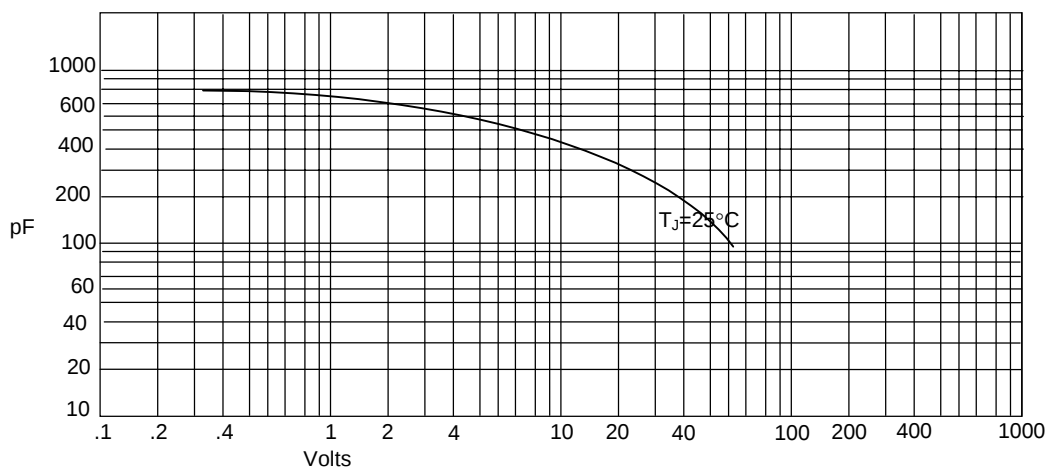
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

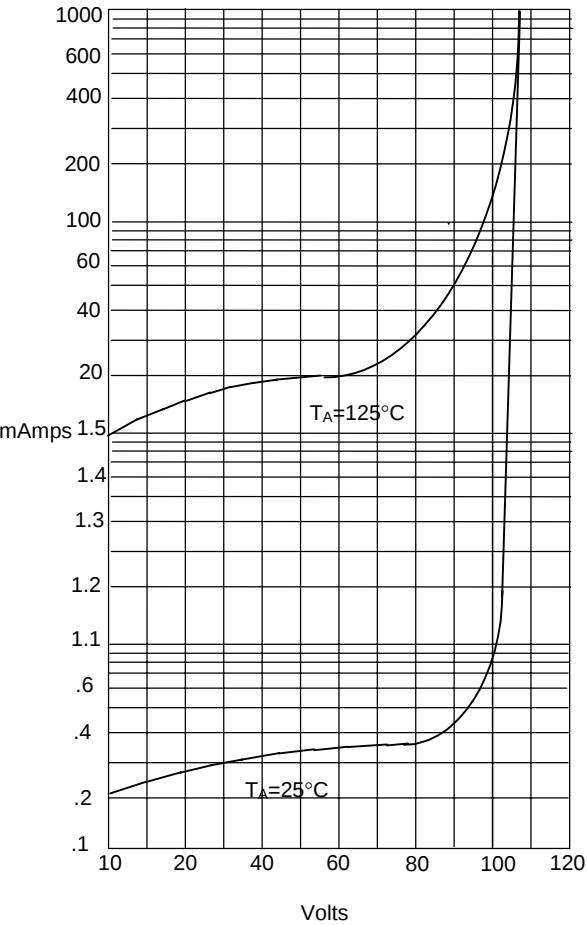
Figure 3
Junction Capacitance



Junction Capacitance - pF *versus*
Reverse Voltage - Volts

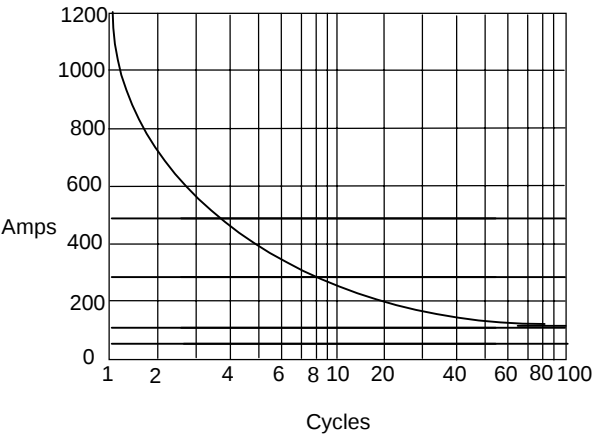


Figure 4
Typical Reverse Characteristics



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