

M·C·C

Micro Commercial Components
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CA 91311
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FST8320SL
THRU
FST8345SL

Features

- Metal of siliconrectifier, 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

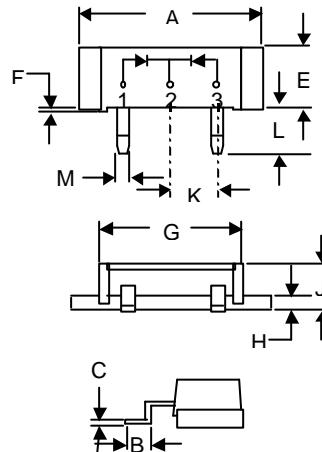
Maximum Ratings

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

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FST8320SL	20V	14V	20V
FST8330SL	30V	21V	30V
FST8335SL	35V	24.5V	35V
FST8340SL	40V	28V	40V
FST8345SL	45V	31.5V	45V

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 FST8320SL-8345SL	V_F	.53 V	$I_{FM} = 40.0\text{A};$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	3.0mA 500nA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
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	.777	.797	19.74	20.24	
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	.200	REF	5.08	REF	2PL
L	.230	.250	5.84	6.35	
M	.065	.085	1.65	2.16	

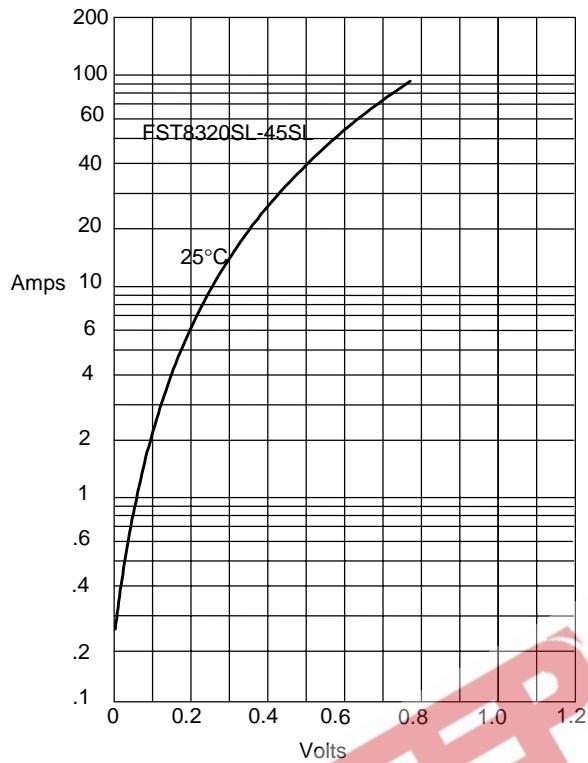
Pulse Test: Pulse Width 300μsec, Duty Cycle 2%

www.mccsemi.com

FST8320SL thru FST8345SL

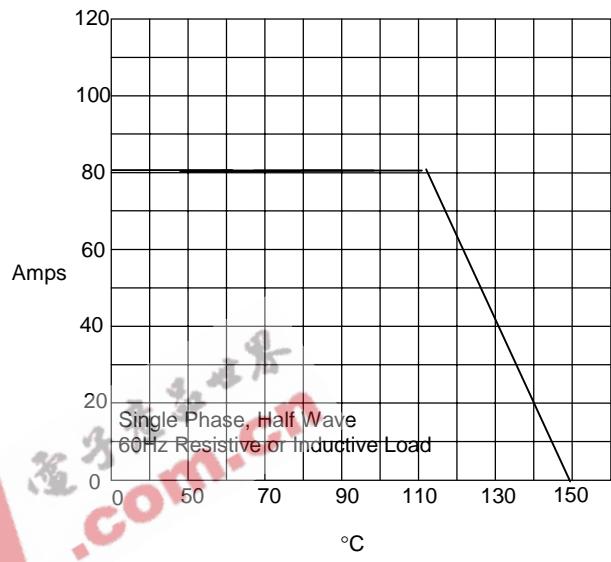
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Figure 1
Typical Forward Characteristics



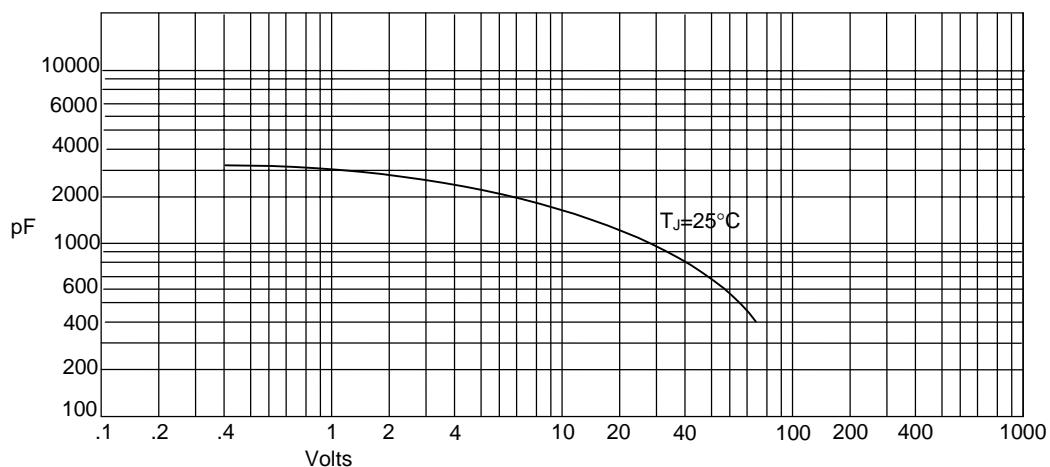
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

Figure 3
Junction Capacitance

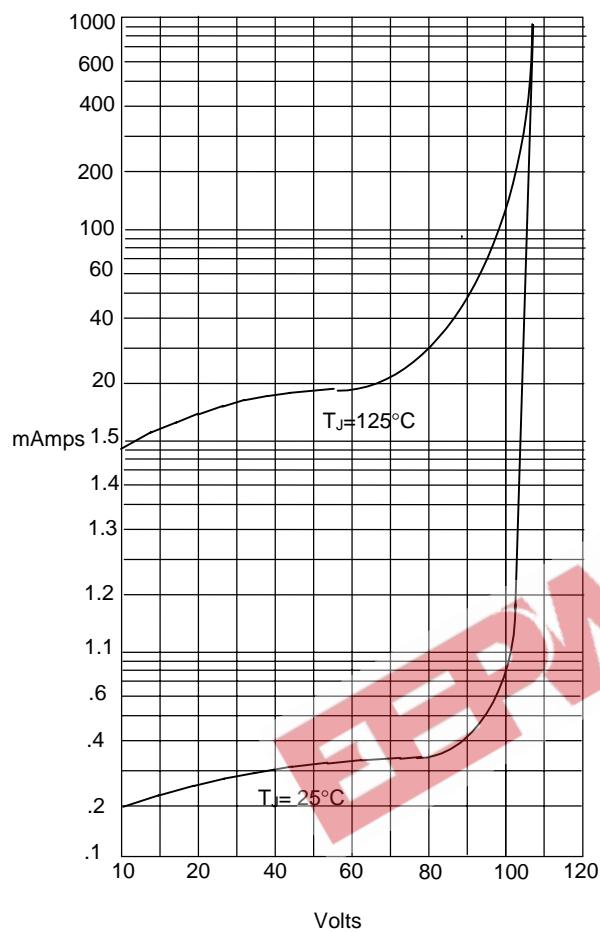


Junction Capacitance - pF versus
Reverse Voltage - Volts

FST8320SL thru FST8345SL

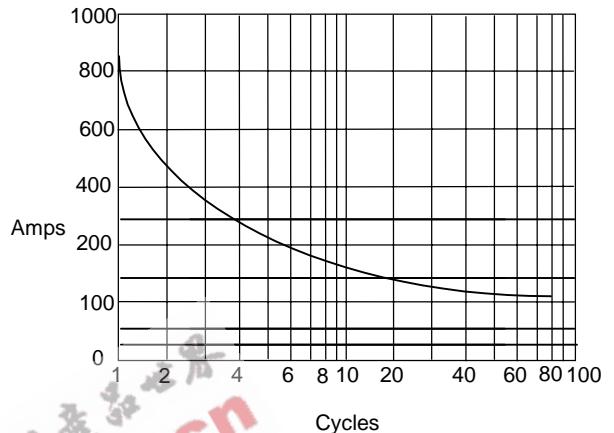
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Figure 4
Typical Reverse Characteristics



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