



Micro Commercial Components

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## FS1A-LT THRU FS1M-LT

### Features

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Easy Pick And Place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Fast Recovery Times For High Efficiency

### Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Maximum Thermal Resistance; 15 °C/W Junction To Lead

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FS1A-LT	FS1A	50V	35V	50V
FS1B-LT	FS1B	100V	70V	100V
FS1D-LT	FS1D	200V	140V	200V
FS1G-LT	FS1G	400V	280V	400V
FS1J-LT	FS1J	600V	420V	600V
FS1K-LT	FS1K	800V	560V	800V
FS1M-LT	FS1M	1000V	700V	1000V

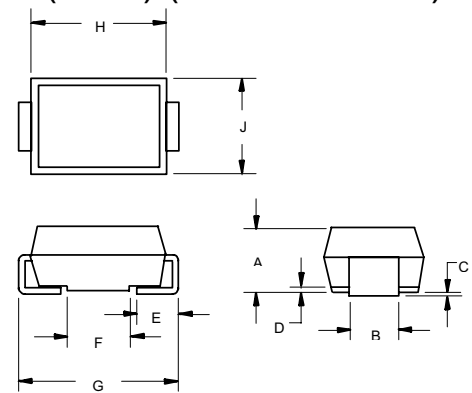
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward current	$I_{F(AV)}$	1.0A	$T_a = 90^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.30V	$I_{FM} = 1.0\text{A};$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5 $\mu\text{A}$ 200 $\mu\text{A}$	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Maximum Reverse Recovery Time FS1A-LT-G-LT FS1J-LT FS1K-LT-M-LT	$T_{rr}$	150ns 250ns 500ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$
Typical Junction Capacitance	$C_J$	50pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

\*Pulse test: Pulse width 200  $\mu\text{sec}$ , Duty cycle 2%

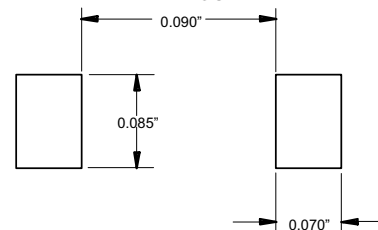
## 1 Amp Fast Recovery Silicon Rectifier 50 to 1000 Volts

### DO-214AC (SMA) (LEAD FRAME)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.079	.096	2.00	2.44	
B	.050	.064	1.27	1.63	
C	.002	.008	.05	.20	
D	—	.02	—	.51	
E	.030	.060	.76	1.52	
F	.065	.091	1.65	2.32	
G	.189	.220	4.80	5.59	
H	.157	.181	4.00	4.60	
J	.090	.115	2.25	2.92	

### SUGGESTED SOLDER PAD LAYOUT



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# FS1A-LT thru FS1M-LT

Figure 1  
Typical Forward Characteristics

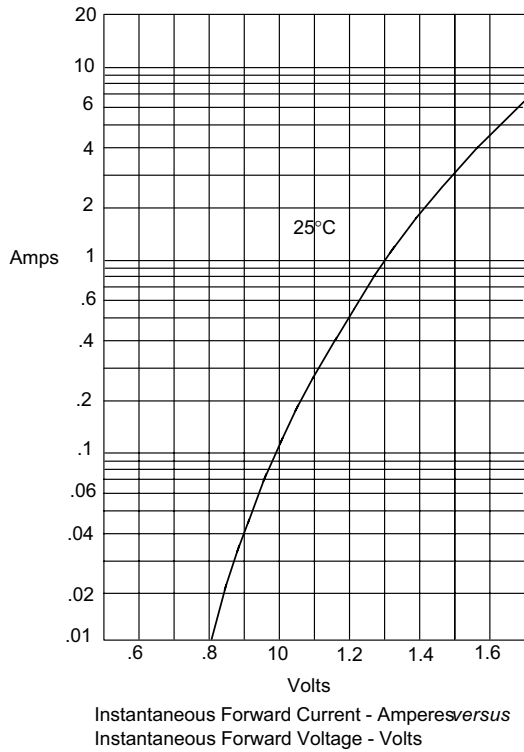


Figure 2  
Forward Derating Curve

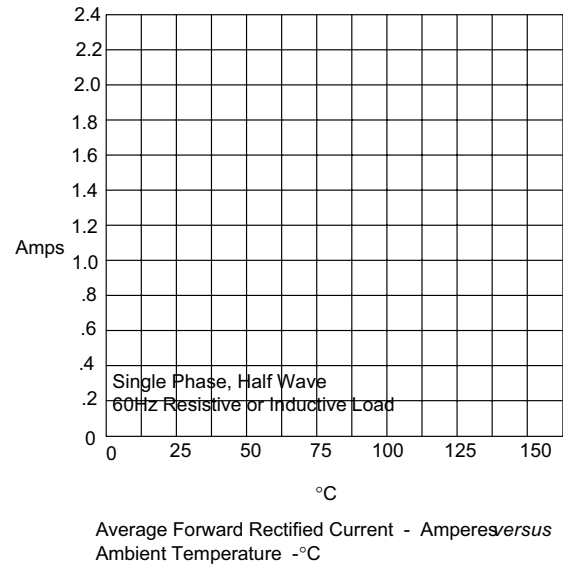
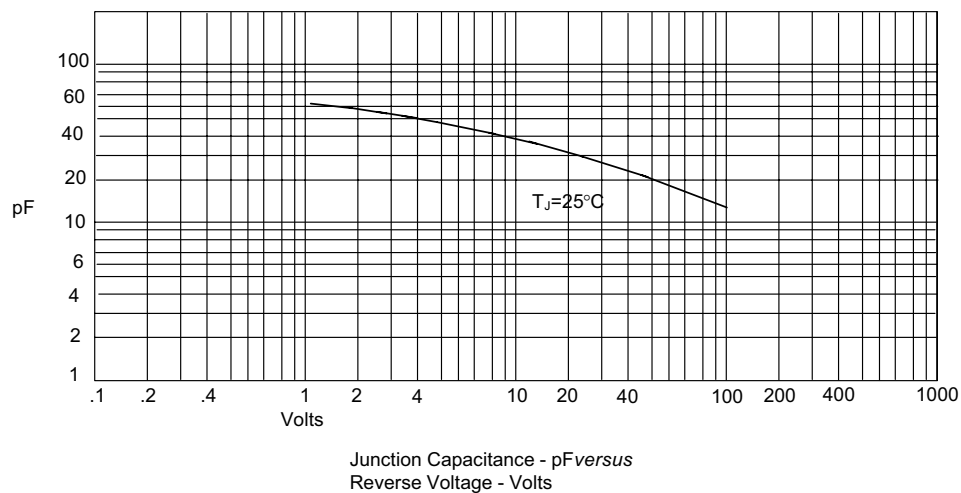


Figure 3  
Junction Capacitance



# FS1A-LT thru FS1M-LT

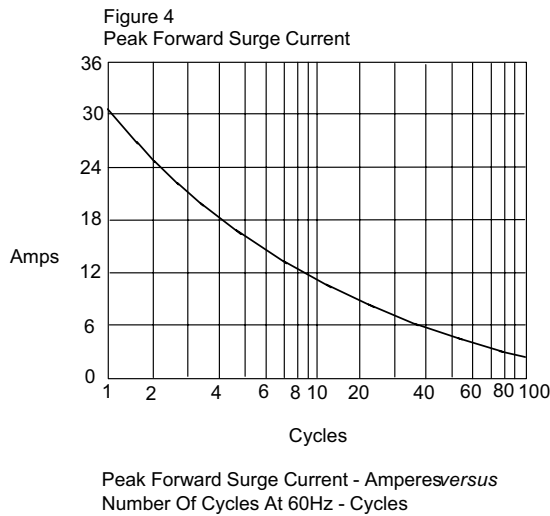
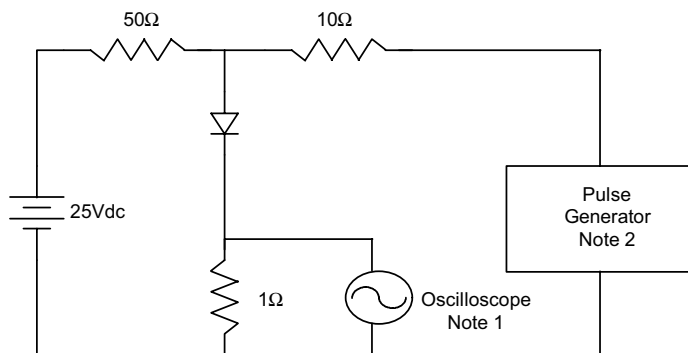
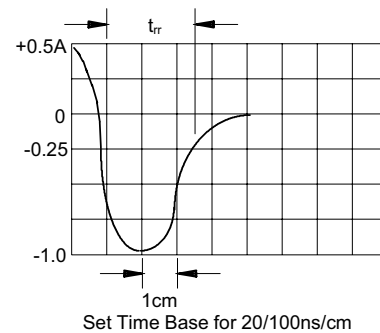


Figure 5  
Reverse Recovery Time Characteristic And Test Circuit Diagram



- Notes:
1. Rise Time = 7ns max.  
Input impedance = 1 megohm, 22pF
  2. Rise Time = 10ns max.  
Source impedance = 50 ohms
  3. Resistors are non-inductive





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