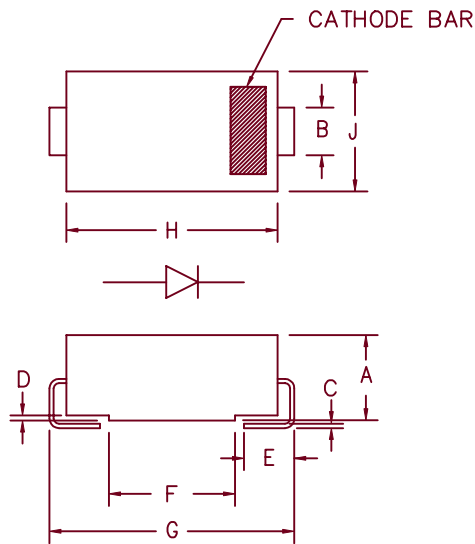


# Ultra Fast Recovery Rectifiers

## ES1A — ES1D



Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	.078	.115	1.98	2.92	
B	.068	.087	1.73	2.21	
C	---	.005	---	0.13	
D	---	.020	---	0.51	
E	.030	.060	0.76	1.52	
F	.065	.084	1.65	2.13	
G	.194	.228	4.93	5.79	
H	.157	.177	3.99	4.50	
J	.100	.110	2.57	2.79	

SMA (DO-214AC)

Microsemi  
Catalog Number

ES1A  
ES1B  
ES1D

Working  
Peak Reverse  
Voltage

50V  
100V  
200V

Repetitive  
Peak Reverse  
Voltage

50V  
100V  
200V

- Ultra Fast Recovery
- 150°C Junction Temperature
- VRRM 50 to 200 Volts
- 1 Amp Current Rating
- $t_{RR}$  50ns Max.

### Electrical Characteristics

Average forward current  
Maximum surge current  
Max peak forward voltage  
Max peak forward voltage  
Max reverse recovery time  
Max peak reverse current  
Typical junction capacitance

$I_F(AV)$  1.0 Amps  
 $I_{FSM}$  30 Amps  
 $V_{FM}$  .75 Volts  
 $V_{FM}$  .975 Volts  
 $t_{RR}$  50 ns  
 $I_{RM}$  5  $\mu$ A  
 $C_J$  45 pF

$T_L = 75^\circ\text{C}$ , Square wave  
8.3ms, half sine,  $T_J = 175^\circ\text{C}$   
 $I_{FM} = 0.1\text{A}; T_J = 25^\circ\text{C}^*$   
 $I_{FM} = 1.0\text{A}; T_J = 25^\circ\text{C}^*$   
1/2A, 1A, 1/4A,  $T_J = 25^\circ\text{C}$   
 $V_{RRM}, T_J = 25^\circ\text{C}$   
 $V_R = 4\text{V}, T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu$ sec, Duty cycle 2%

### Thermal and Thermal Characteristics

Storage temperature range  
Operating junction temp range  
Weight

$T_{STG}$   
 $T_J$

-55°C to 150°C  
-55°C to 150°C  
.0047 ounces (.013 grams) typical

4-4-03 Rev. 1



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