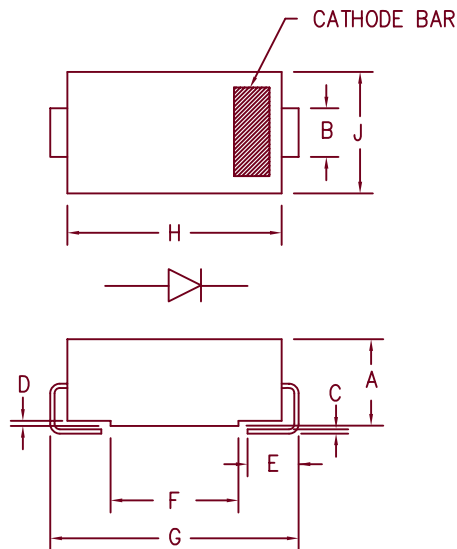


# Ultra Fast Recovery Rectifiers

## ES1J — ES1K



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	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
ES1J	600V	600V
ES1K	800V	800V

- Ultra Fast Recovery
- 150°C Junction Temperature
- VRRM 600 to 800 Volts
- 1 Amp Current Rating
- $t_{RR}$  60nS Max.

### Electrical Characteristics

Average forward current	$I_F(AV)$ 1.0 Amps	$T_L = 75^\circ C$ , Square wave
Maximum surge current	$I_{FSM}$ 30 Amps	8.3ms, half sine, $T_J = 175^\circ C$
Max peak forward voltage	$V_{FM}$ .89 Volts	$I_{FM} = 0.1A; T_J = 25^\circ C^*$
Max peak forward voltage	$V_{FM}$ 1.35 Volts	$I_{FM} = 1.0A; T_J = 25^\circ C^*$
Max reverse recovery time	$t_{RR}$ 60 nS	1/2A, 1A, 1/4A, $T_J = 25^\circ C$
Max peak reverse current	$I_{RM}$ 5 $\mu A$	$V_{RRM}, T_J = 25^\circ C$
Typical junction capacitance	$C_J$ 45 pF	$V_R = 4V, T_J = 25^\circ C$

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

### Thermal and Mechanical Characteristics

Storage temperature range	$T_{STG}$	-55°C to 150°C
Operating junction temp range	$T_J$	-55°C to 150°C
Weight		.0047 ounces (.013 grams) typical



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