SP SERIES

3 to 8kV, 40 to 750mA, 50 to 100nS
Surface Mount Diodes

Features

- J Lead or Gullwing Package Option
- Fast Reverse Recovery Time for High Efficiency
- Molded Plastic Body, ANSI/UL94 V-0 Rated Material

Specifications[1]

Part Number	V_{RRM} V	I_{FAVM1}[2] mA	I_{FAVM2}[2] mA	V_F V	I_R µA	I_{FSM} A	C_J pF	T_{RR} nS	$R_{\theta JL}$ °C/W
J Lead Subseries (Figure 1)									
SP3S	3000	120	50	3.9	0.5	3	2.5	75	40
SP3L	3000	450	110	3.6	0.5	10	9.0	75	22
SP3A	3000	750	200	3.2	0.5	15	15.0	100	12
SP5S	5000	40	20	14.0	0.5	3	1.0	60	50
SP5L	5000	270	140	8.5	0.5	10	4.5	75	42
SP5LF	5000	270	140	7.6	0.5	10	6.8	50	42
Gullwing Subseries (Figure 2)									
SP3SG	3000	120	50	3.9	0.5	3	2.5	75	40
SP3LG	3000	450	110	3.6	0.5	10	9.0	75	22
SP3AG	3000	750	200	3.2	0.5	15	15.0	100	12
SP5SG	5000	40	20	14.0	0.5	3	1.0	60	50
SP5LG	5000	270	140	8.5	0.5	10	4.5	75	42
SP5LFG	5000	270	140	7.6	0.5	10	7.2	50	42
SP8SG	8000	40	20	18.0	0.5	3	0.8	75	45
SP8LG	8000	100	40	18.0	0.5	10	3.3	75	15

Temperature °C	
Storage Temperature	-55 to 175
Operating Temperature	-55 to 150 *(SP5S, SP5L, SP5LF, SP5SG, SP5LG, SP5LFG)* -55 to 125 *(All other models)*
Maximum Junction Temperature	150 *(SP5S, SP5L, SP5LF, SP5SG, SP5LG, SP5LFG)* 125 *(All other models)*

[1]25°C ambient temperature unless stated otherwise.

[2]Check Specification Definitions for conditions details.

Drawings

Dimensions in inches [mm], tolerances ±0.020 except as noted

Figure 1

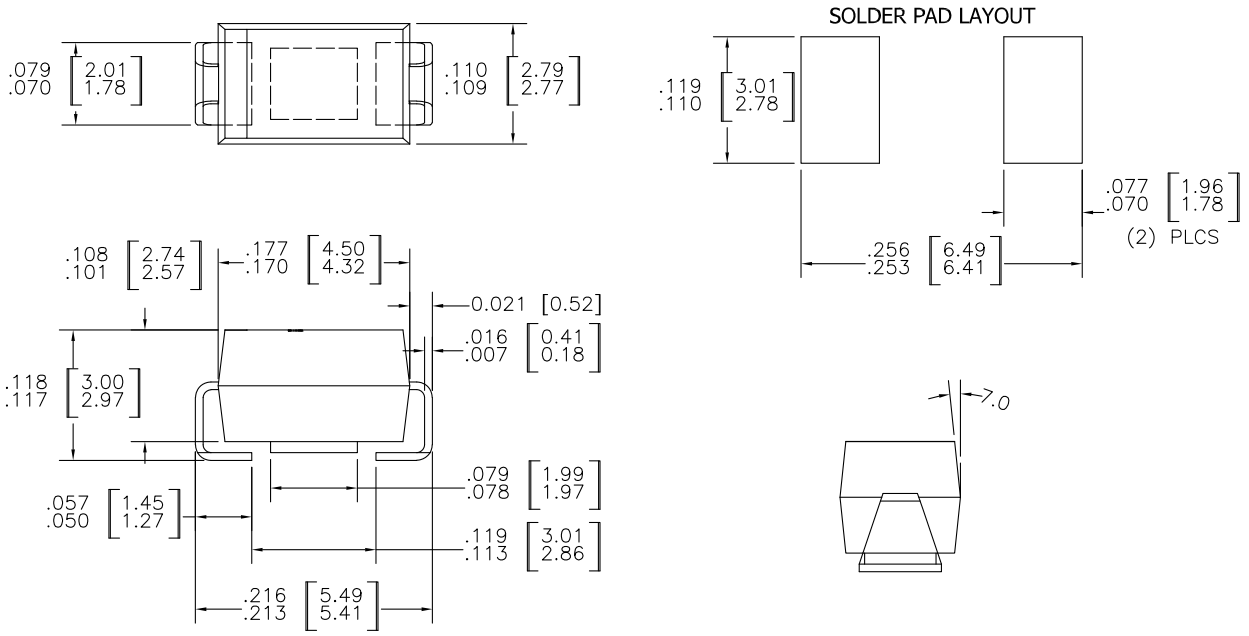
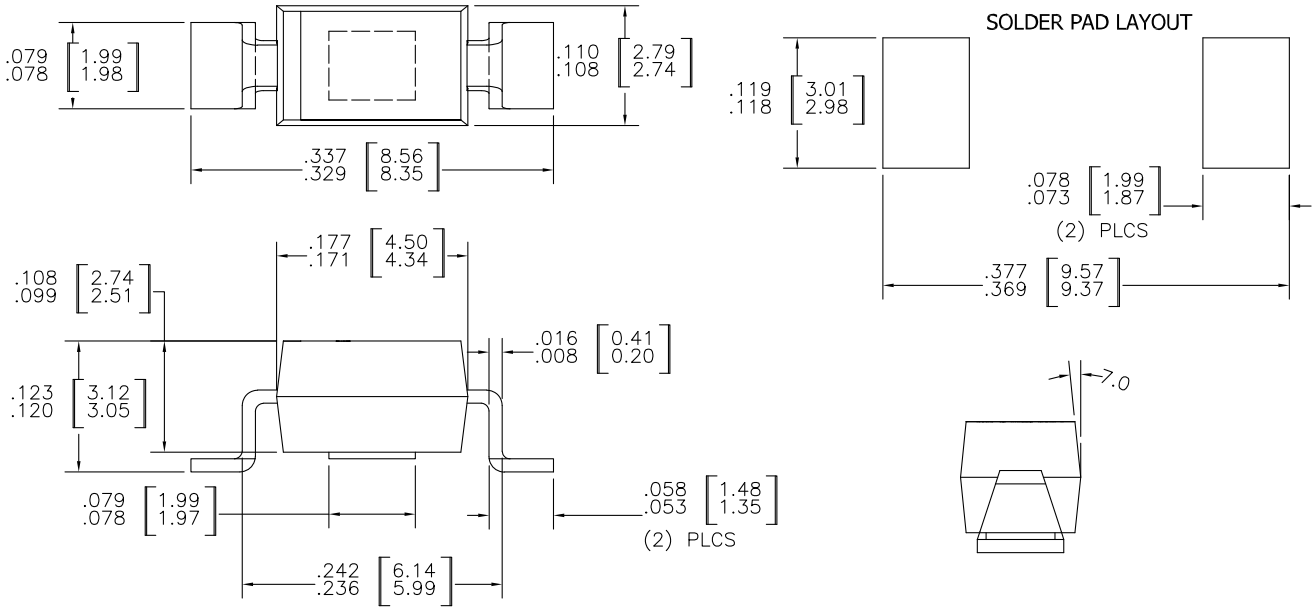
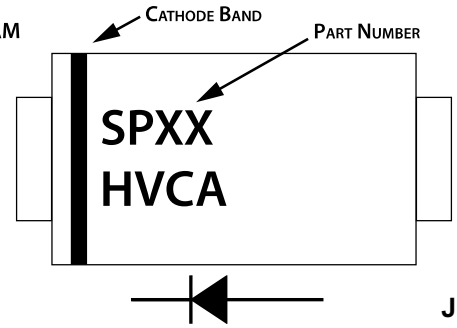


Figure 2



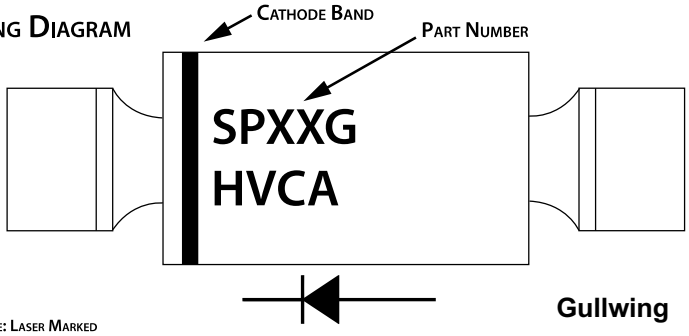
Marking Diagram



J Lead

Marking Type: Laser Marked
(Markings are subject to minor changes)

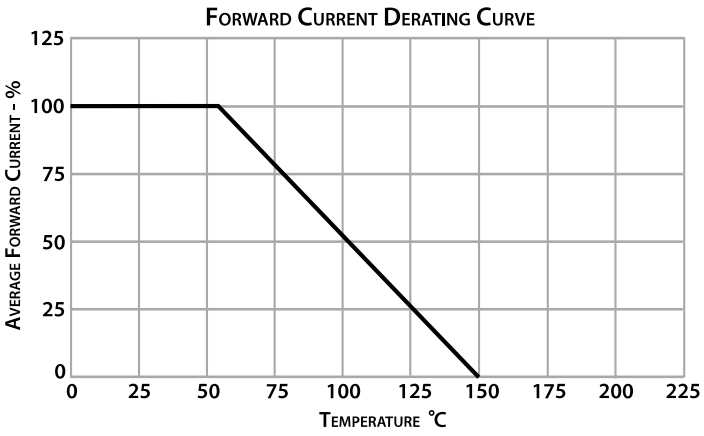
Marking Diagram



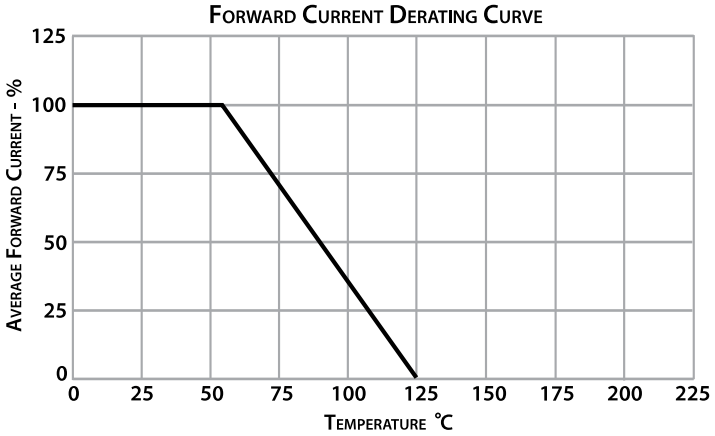
Gullwing

Marking Type: Laser Marked
(Markings are subject to minor changes)

SP5S, SP5L, SP5LF, SP5SG, SP5LG, SP5LFG



All other models



Specification Definitions

	Specifications	Conditions
V_{RRM}	Maximum Repetitive Reverse Voltage	-
I_{FAVM1}	Maximum Average Forward Current	At T_L = 55°C
I_{FAVM2}	Maximum Average Forward Current	At T_L = 100°C
V_F	Maximum Forward Voltage Drop	At I_F = 100mA
I_R	Maximum Leakage Current	At V_{RRM}
I_{FSM}	Maximum Surge Current	At 8.3 mS, Single Half Sine
C_J	Typical Junction Capacitance	At V_R = 0VDC, f = 1MHz
T_{RR}	Maximum Reverse Recovery Time	I_F = 0.5 I_{FAVM1}; I_R = - I_{FAVM1}; I_{RR} = -0.25 I_{FAVM1}
$R_{\theta JL}$	Typical Thermal Resistance	Device Mounted on 0.2” x 0.2” (5mm x 5mm) Copper Solder Pads

Note: Specifications subject to change without notice. Photo is representation only.

RoHS COMPLIANT