# SMC3K22CA thru SMC3K78CA

# Vishay General Semiconductor

<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)										
DEVICE TYPE	DEVICE MARKING CODE	BREAKDOWN VOLTAGE V <sub>BR</sub> <sup>(1)</sup> (V) AT I <sub>T</sub>		TEST CURRENT I <sub>T</sub>	STAND-OFF VOLTAGE V <sub>WM</sub>	MAXIMUM REVERSE LEAKAGE	MAX. PEAK PULSE SURGE CURRENT I <sub>PPM</sub> <sup>(2)</sup>	MAXIMUM CLAMPING VOLTAGE		
		MIN.	MAX.	(mA)	(V)	AT V <sub>WM</sub> Ι <sub>D</sub> (μΑ)	(A)	AT I <sub>PPM</sub> V <sub>C</sub> (V)		
SMC3K22CA	3BEX	24.4	26.9	1.0	22	2.0	84.5	35.5		
SMC3K24CA	3BEZ	26.7	29.5	1.0	24	2.0	77.1	38.9		
SMC3K26CA	3BFE	28.9	31.9	1.0	26	2.0	71.3	42.1		
SMC3K28CA	3BFG	31.1	34.4	1.0	28	2.0	66.1	45.4		
SMC3K30CA	3BFK	33.3	36.8	1.0	30	2.0	62.0	48.4		
SMC3K33CA	3BFM	36.7	40.6	1.0	33	2.0	56.3	53.3		
SMC3K36CA	3BFP	40.0	44.2	1.0	36	2.0	51.6	58.1		
SMC3K40CA	3BFR	44.4	49.1	1.0	40	2.0	46.5	64.5		
SMC3K43CA	3BFT	47.8	52.8	1.0	43	2.0	43.2	69.4		
SMC3K45CA	3GFV	50.0	55.3	1.0	45	2.0	41.3	72.7		
SMC3K48CA	3GFX	53.3	58.9	1.0	48	2.0	38.8	77.4		
SMC3K51CA	3GFZ	56.7	62.7	1.0	51	2.0	36.4	82.4		
SMC3K54CA	3GGE	60.0	66.3	1.0	54	2.0	34.4	87.1		
SMC3K58CA	3GGG	64.4	71.2	1.0	58	2.0	32.1	93.6		
SMC3K60CA	3GGK	66.7	73.7	1.0	60	2.0	31.0	96.8		
SMC3K64CA	3GGM	71.1	78.6	1.0	64	2.0	29.1	103		
SMC3K70CA	3GGP	77.8	86.0	1.0	70	2.0	26.5	113		
SMC3K75CA	3GGR	83.3	92.1	1.0	75	2.0	24.8	121		
SMC3K78CA	3GGT	86.7	95.8	1.0	78	2.0	23.8	126		

### Notes

- <sup>(1)</sup> Pulse test:  $t_p \le 50 \text{ ms}$
- (2) Surge current waveform per fig. 3 and derated per fig.2
- (3) All terms and symbols are consistent with ANSI/IEEE C62.35

ORDERING INFORMATION (Example)									
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE					
SMC3K22CA-M3/57	0.257	57	850	7" diameter plastic tape and reel					
SMC3K22CA-M3/9A	0.257	9A	3500	13" diameter plastic tape and reel					
SMC3K22CAHM3/57 (1)	0.257	57	850	7" diameter plastic tape and reel					
SMC3K22CAHM3/9A (1)	0.257	9A	3500	13" diameter plastic tape and reel					

### Note

(1) AEC-Q101 qualified



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## RATINGS AND CHARACTERISTICS CURVES (T<sub>A</sub> = 25 °C unless otherwise noted)

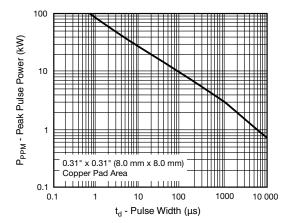


Fig. 1 - Peak Pulse Power Derating Curve

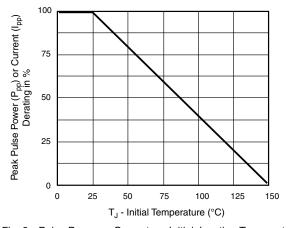


Fig. 2 - Pulse Power or Current vs. Initial Junction Temperature

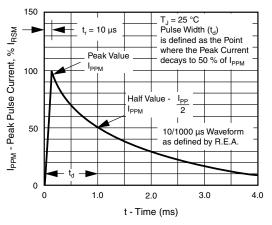


Fig. 3 - Pulse Waveform

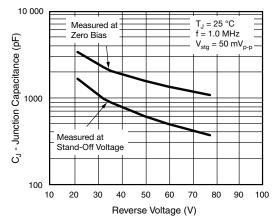


Fig. 4 - Typical Junction Capacitance



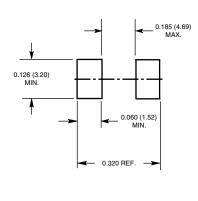
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### **PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)

# 0.126 (3.20) 0.114 (2.90) 0.103 (2.62) 0.006 (1.52) 0.008 (0.2) 0.008 (0.2) 0.008 (0.2) 0.008 (0.7.75)

### **Mounting Pad Layout**





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SMC3K24CAHM3/57 SMC3K43CAHM3/57 SMC3K33CAHM3/57 SMC3K30CAHM3/57 SMC3K58CAHM3/57
SMC3K48CAHM3/57 SMC3K75CAHM3/57 SMC3K70CAHM3/57 SMC3K22CAHM3/57 SMC3K24CA-M3/57
SMC3K33CA-M3/57 SMC3K28CA-M3/57
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SMC3K26CA-M3/57
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SMC3K58CA-M3/9A SMC3K54CA-M3/57
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                         SMC3K26CA-M3/9A
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                         SMC3K22CAHM3/9A SMC3K70CAHM3/9A SMC3K36CAHM3/9A
SMC3K22CA-M3/9A SMC3K40CA-M3/9A SMC3K48CAHM3/9A SMC3K60CA-M3/9A SMC3K22CA-M3/57
SMC3K78CAHM3/9A
            SMC3K45CAHM3/9A SMC3K45CA-M3/57 SMC3K30CAHM3/9A SMC3K58CAHM3/9A
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