

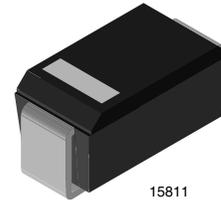
## Surface Mount Zener Diodes

### FEATURES

- Plastic package has underwriters laboratory flammability classification 94 V-0
- For surface mounted applications
- Low Zener impedance
- Low regulation factor
- High temperature soldering guaranteed: 260 °C/10 s at terminals
- Standard voltage tolerance is 10 %, suffix A  $\pm 5$  %
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC



**RoHS**  
COMPLIANT



15811

### MECHANICAL DATA

**Case:** DO-214AC

**Terminals:** solder plated, solderable per MIL-STD- 750, method 2026

**Polarity:** color band denotes positive end (cathode)

**Mounting position:** any

**Weight:** 0.002 ounce, 64 mg

### Packaging codes/options (antistatic):

SML4728 to SML4764A:

61 to 1.8 k per 7" plastic reel (12 mm tape)

5A to 7.5 k per 13" plastic reel (12 mm tape)

Base P/N-E3 - RoHS compliant, commercial grade

### Absolute Maximum Ratings

$T_{amb} = 25$  °C, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Power dissipation	$T_L = 75$ °C	$P_{tot}$	1	W

### Thermal Characteristics

$T_{amb} = 25$  °C, unless otherwise specified

Parameter	Test condition	Symbol	Value	Unit
Maximum junction temperature		$T_j$	150	°C
Storage temperature range		$T_{stg}$	- 65 to + 150	°C

# SML4728 to SML4764A



Vishay Semiconductors

## Electrical Characteristics

Part number	Device marking code	Nominal Zener voltage	Test current	Maximum dynamic impedance resistance			Maximum DC reverse leakage current		Maximum surge current
		$V_Z^{(1)}$ at $I_{ZT}$	$I_{ZT}$	$Z_{ZT}$ at $I_{ZT}$	$Z_{ZK}$ at $I_{ZK}$	$I_{ZK}$	$I_R$	$V_R$	$I_{RM}^{(2)}$
		V	mA	$\Omega$	$\Omega$	mA	$\mu A$	V	mApk
SML4728	3P3	3.3	76	10	400	1	100	1	1380
SML4729	3P6	3.6	69	10	400	1	100	1	1260
SML4730	3P9	3.9	64	9	400	1	50	1	1190
SML4731	4P3	4.3	58	9	400	1	10	1	1070
SML4732	4P7	4.7	53	8	500	1	10	1	970
SML4733	5P1	5.1	49	7	550	1	10	1	890
SML4734	5P6	5.6	45	5	600	1	10	2	810
SML4735	6P2	6.2	41	2	700	1	10	3	730
SML4736	6P8	6.8	37	3.5	700	1	10	4	660
SML4737	7P5	7.5	34	4	700	0.5	10	5	605
SML4738	8P2	8.2	31	4.5	700	0.5	10	6	550
SML4739	9P1	9.1	28	5	700	0.5	10	7	500
SML4740	10	10	25	7	700	0.25	10	7.6	454
SML4741	11	11	23	8	700	0.25	5	8.4	414
SML4742	12	12	21	9	700	0.25	5	9.1	380
SML4743	13	13	19	10	700	0.25	5	9.9	344
SML4744	15	15	17	14	700	0.25	5	11.4	305
SML4745	16	16	15.5	16	700	0.25	5	12.2	285
SML4746	18	18	14	20	750	0.25	5	13.7	250
SML4747	20	20	12.5	22	750	0.25	5	15.2	225
SML4748	22	22	11.5	23	750	0.25	5	16.7	205
SML4749	24	24	10.5	25	750	0.25	5	18.2	190
SML4750	27	27	9.5	35	750	0.25	5	20.6	170
SML4751	30	30	8.5	40	1000	0.25	5	22.8	150
SML4752	33	33	7.5	45	1000	0.25	5	25.1	135
SML4753	36	36	7	50	1000	0.25	5	27.4	125
SML4754	39	39	6.5	60	1000	0.25	5	29.7	115
SML4755	43	43	6	70	1500	0.25	5	32.7	110
SML4756	47	47	5.5	80	1500	0.25	5	35.8	95
SML4757	51	51	5	95	1500	0.25	5	38.8	90
SML4758	56	56	4.5	110	2000	0.25	5	42.6	80
SML4759	62	62	4	125	2000	0.25	5	47.1	70
SML4760	68	68	3.7	150	2000	0.25	5	51.7	65
SML4761	75	75	3.3	175	2000	0.25	5	56	60
SML4762	82	82	3	200	3000	0.25	5	62.2	55
SML4763	91	91	2.8	250	3000	0.25	5	69.2	50
SML4764	100	100	2.5	350	3000	0.25	5	76	45

Notes:

(1) Based on dc- measurement at thermal equilibrium

(2) Surge current is a non-repetitive, 8.3 ms pulse width square wave or equivalent sine-wave superimposed on  $I_{ZT}$  per JEDEC method

## TYPICAL CHARACTERISTICS

$T_{amb} = 25\text{ }^{\circ}\text{C}$ , unless otherwise specified

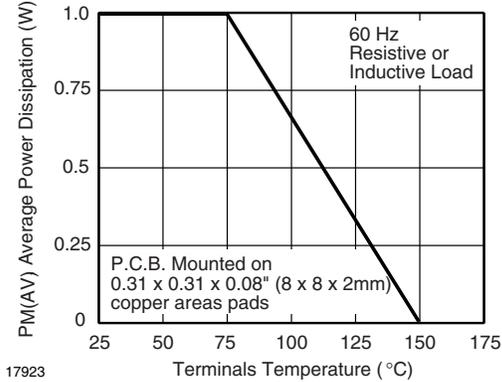


Fig. 1 - Maximum Continuous Power Dissipation

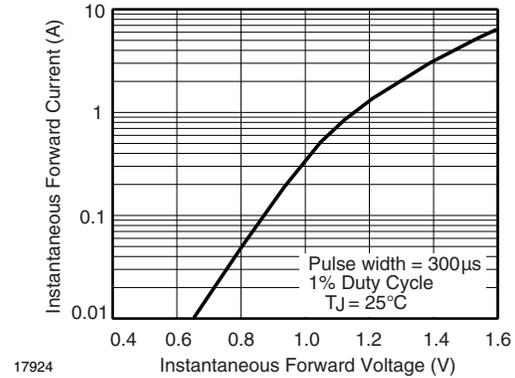


Fig. 4 - Typical Instantaneous Forward Characteristics for SML4763

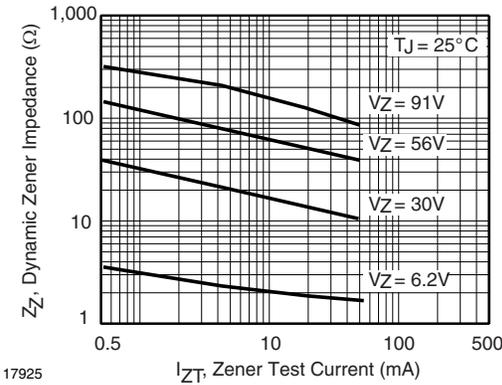


Fig. 2 - Typical Zener Impedance

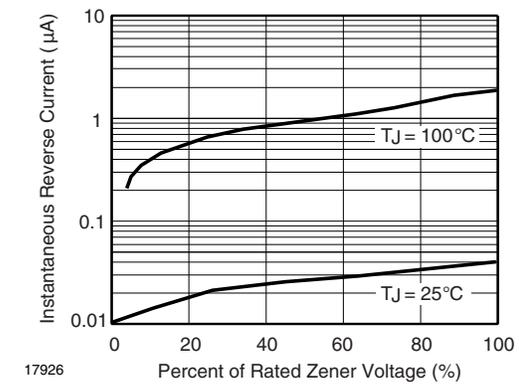


Fig. 5 - Typical Reverse Characteristics

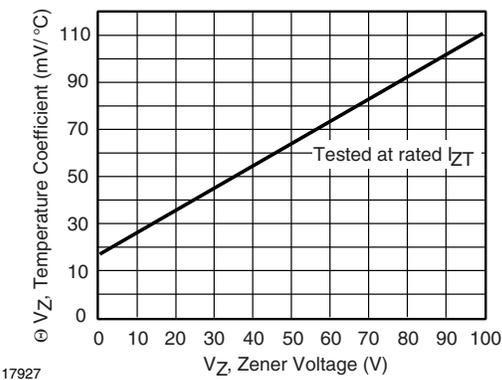


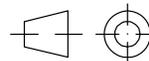
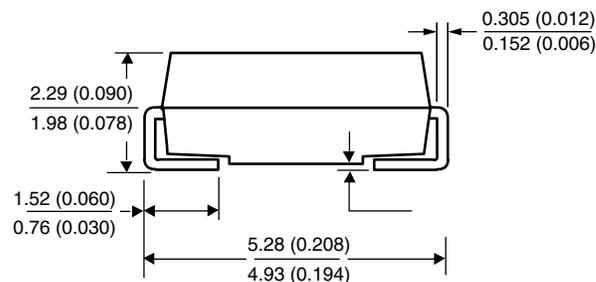
Fig. 3 - Typical Temperature Coefficients

# SML4728 to SML4764A

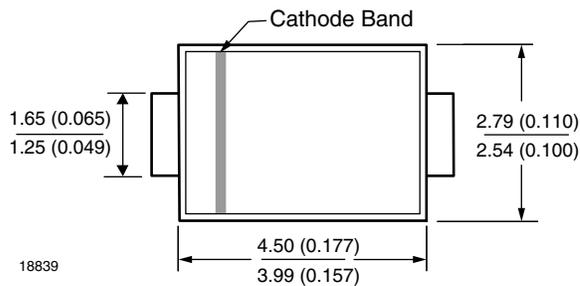


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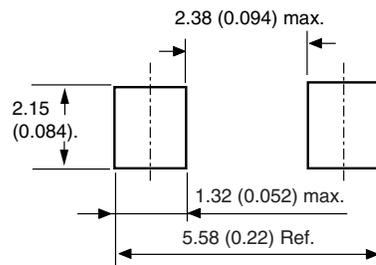
**PACKAGE DIMENSIONS** in millimeters (inches): **DO-214AC**



ISO Method E



## Mounting Pad Layout





## Disclaimer

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