



Surface Mount Zener Diodes

SML4728A-SML4764A
Vishaymas Semiconductors



DO-214AC (SMA)

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 $\pm 10\%$, suffix A $\pm 5\%$
- AEC-Q101 qualified
- Material categorization: For definitions of compliance

PRIMARY CHARACTERISTICS		
PARAMETER	VALUE	UNIT
V _Z range nom.	3.3 to 100	V
Test current I _{ZT}	2.5 to 76	mA
V _Z specification	Pulse current	
Int. construction	Single	

MECHANICAL DATA

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

Base P/NHE3 - RoHS-compliant, AEC-Q101 qualified

ORDERING INFORMATION			
DEVICE NAME	ORDERING CODE	TAPED UNITS PER REEL	MINIMUM ORDER QUANTITY
SML4728 to SML4764A	SML4728-E3/5A SML4728HE3/5A	7500 (12 mm tape on 13" plastic reel)	
SML4728 to SML4764A	SML4728-E3/61 SML4728HE3/61	1800 (12 mm tape on 7" plastic reel)	

PACKAGE				
PACKAGE NAME	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
DO-214AC	64 mg	UL 94 V-0	MSL level 1 (according J-STD-020)	260 °C/10 s at terminals

ABSOLUTE MAXIMUM RATINGS (T _{amb} = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Power dissipation	T _L = 75 °C	P _{tot}	1000	mW
Junction temperature		T _j	150	°C
Storage temperature range		T _{stg}	- 65 to + 150	°C



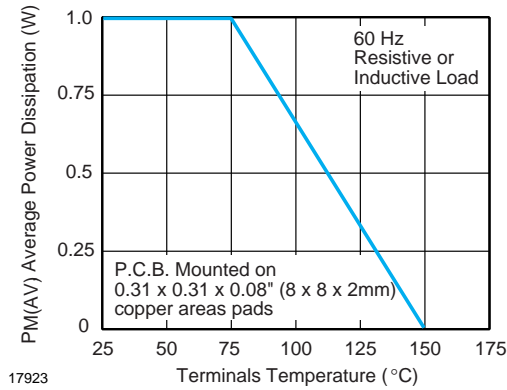
ELECTRICAL CHARACTERISTICS (T _{amb} = 25 °C, unless otherwise specified)								
PART NUMBER 型号	ZENER VOLTAGE RANGE 齐纳电压范围	TEST CURRENT 测试电流		REVERSE CURRENT 反向漏电流		DYNAMIC RESISTANCE 动态电阻		SURGE CURRENT (1) 冲击电流
	V _Z at I _{ZT1}	I _{ZT1}	I _{ZT2}	I _R at V _R		Z _Z at I _{ZT1}	Z _{ZK} at I _{ZT2}	I _{RM}
	V	mA		μA	V	Ω		mA _{pk}
	NOM.			MAX.		MAX.	MAX.	MAX.
SML4728A	3.3	76	1	100	1	10	400	1380
SML4729A	3.6	69	1	100	1	10	400	1260
SML4730A	3.9	64	1	50	1	9	400	1190
SML4731A	4.3	58	1	10	1	9	400	1070
SML4732A	4.7	53	1	10	1	8	500	970
SML4733A	5.1	49	1	10	1	7	550	890
SML4734A	5.6	45	1	10	2	5	600	810
SML4735A	6.2	41	1	10	3	2	700	730
SML4736A	6.8	37	1	10	4	3.5	700	660
SML4737A	7.5	34	0.5	10	5	4	700	605
SML4738A	8.2	31	0.5	10	6	4.5	700	550
SML4739A	9.1	28	0.5	10	7	5	700	500
SML4740A	10	25	0.25	10	7.6	7	700	454
SML4741A	11	23	0.25	5	8.4	8	700	414
SML4742A	12	21	0.25	5	9.1	9	700	380
SML4743A	13	19	0.25	5	9.9	10	700	344
SML4744A	15	17	0.25	5	11.4	14	700	305
SML4745A	16	15.5	0.25	5	12.2	16	700	285
SML4746A	18	14	0.25	5	13.7	20	750	250
SML4747A	20	12.5	0.25	5	15.2	22	750	225
SML4748A	22	11.5	0.25	5	16.7	23	750	205
SML4749A	24	10.5	0.25	5	18.2	25	750	190
SML4750A	27	9.5	0.25	5	20.6	35	750	170
SML4751A	30	8.5	0.25	5	22.8	40	1000	150
SML4752A	33	7.5	0.25	5	25.1	45	1000	135
SML4753A	36	7	0.25	5	27.4	50	1000	125
SML4754A	39	6.5	0.25	5	29.7	60	1000	115
SML4755A	43	6	0.25	5	32.7	70	1500	110
SML4756A	47	5.5	0.25	5	35.8	80	1500	95
SML4757A	51	5	0.25	5	38.8	95	1500	90
SML4758A	56	4.5	0.25	5	42.6	110	2000	80
SML4759A	62	4	0.25	5	47.1	125	2000	70
SML4760A	68	3.7	0.25	5	51.7	150	2000	65
SML4761A	75	3.3	0.25	5	56	175	2000	60
SML4762A	82	3	0.25	5	62.2	200	3000	55
SML4763A	91	2.8	0.25	5	69.2	250	3000	50
SML4764A	100	2.5	0.25	5	76	350	3000	45

Note

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

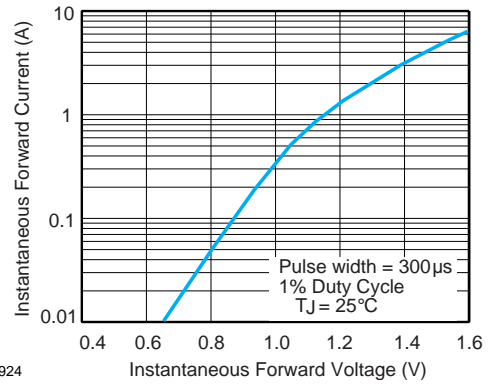


BASIC CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)



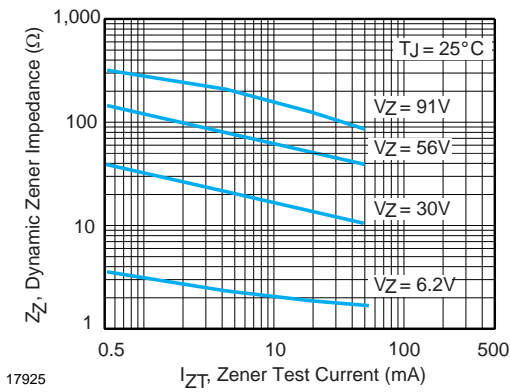
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Fig. 1 - Maximum Continuous Power Dissipation



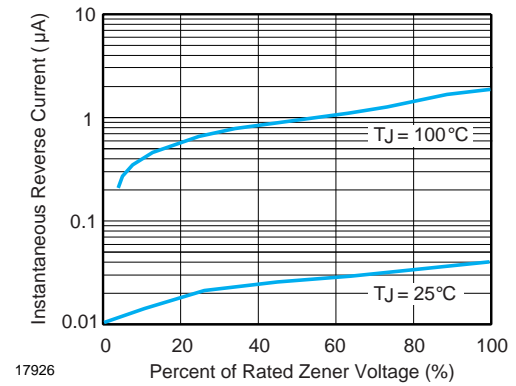
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Fig. 4 - Typical Instantaneous Forward Characteristics for SML4763



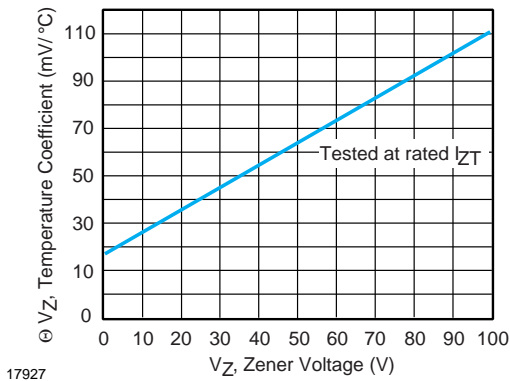
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Fig. 2 - Typical Zener Impedance



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Fig. 5 - Typical Reverse Characteristics



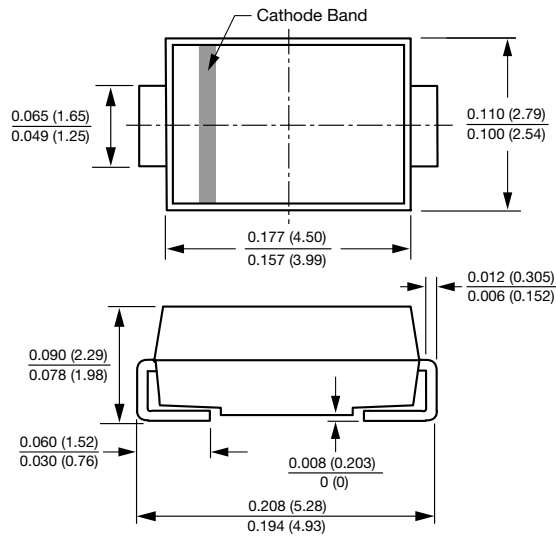
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Fig. 3 - Typical Temperature Coefficients



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

DO-214AC (SMA)



Mounting Pad Layout

