

Features

- Low Zener Impedance
- Power Dissipation of 1000mW
- High Stability and High Reliability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C

Applications

Zener diode is generally used as reference voltage sources in regulated power supplies or as protective diode in overvoltage protection circuits.

Mechanical Data

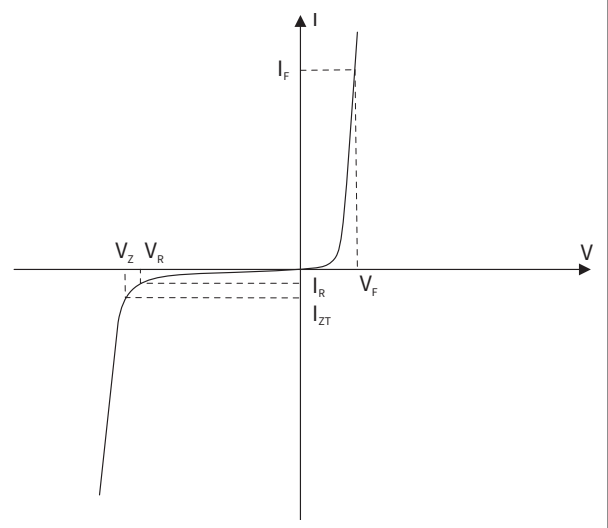
- Case: DO-214AC(SMA)
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

Maximum Ratings (Ta=25°C Unless otherwise specified)

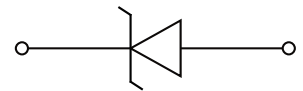
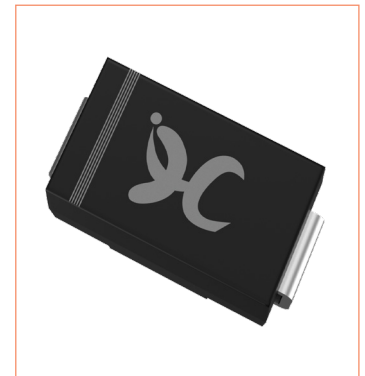
PARAMETER	SYMBOL	UNIT	VALUE
Power Dissipation	P_D	mW	1000
Forward Voltage @ $I_F=10\text{mA}$	V_F	V	1.2
Storage Temperature	T_{stg}	°C	-55 ~ +150
Junction Temperature	T_j	°C	-55 ~ +150
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	250

Electrical Parameter

SYMBOL	PARAMETER
V_Z	Reverse zener voltage @ I_{ZT}
I_{ZT}	Reverse current
Z_{ZT}	Maximum Zener Impedance @ I_{ZT}
I_{ZK}	Reverse Current
Z_{ZK}	Maximum Zener Impedance @ I_{ZK}
I_R	Reverse leakage current @ V_R
V_R	Reverse voltage
I_F	Forward current
V_F	Forward voltage @ I_F



DO-214AC(SMA)



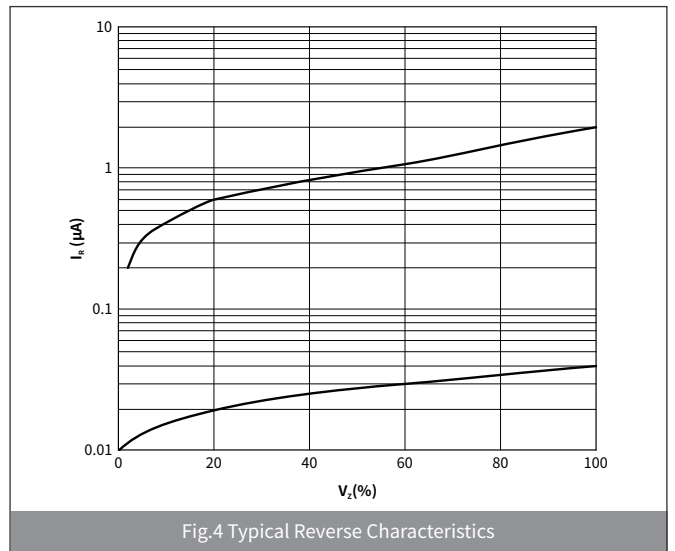
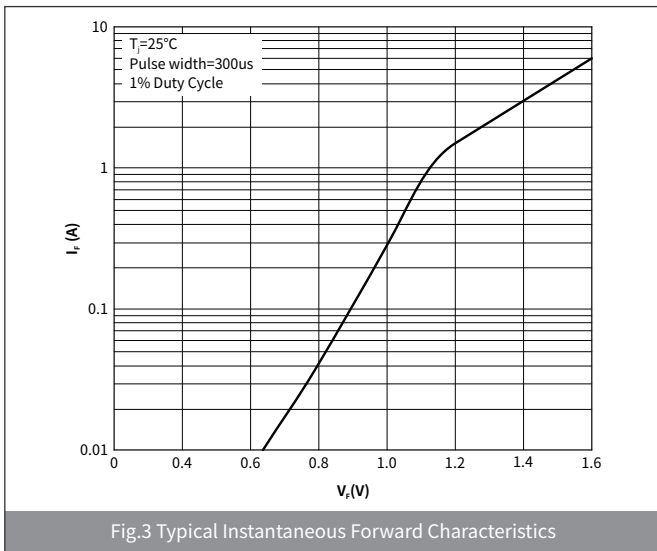
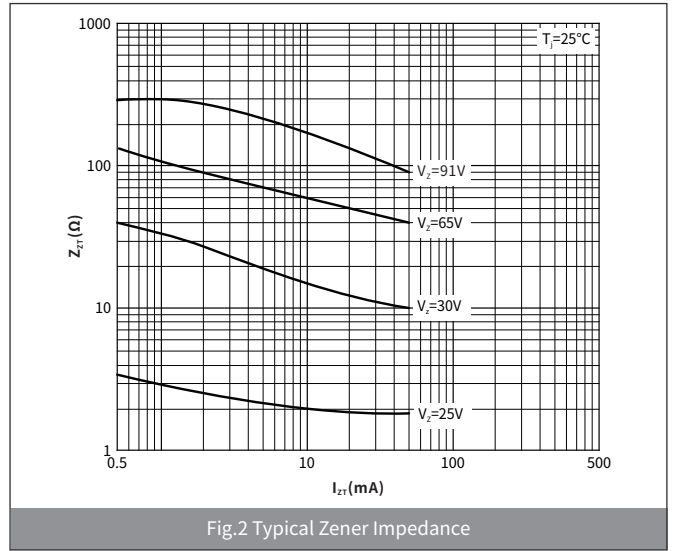
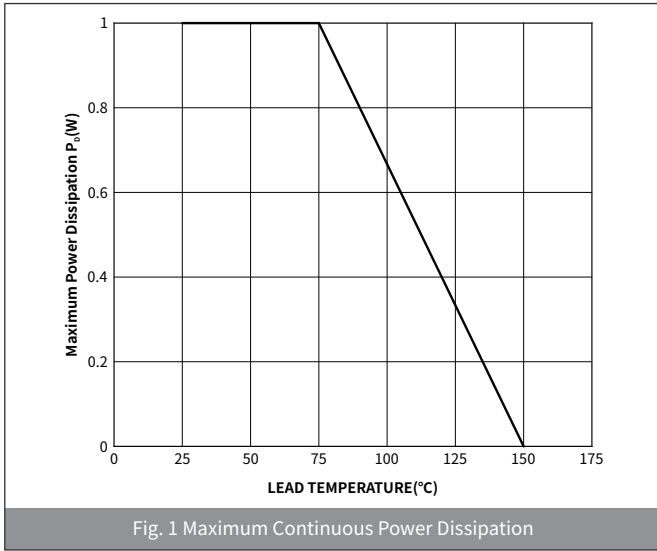
► Electrical Characteristics (Ta=25°C Unless otherwise specified)

Type Number	Type Code	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Maximum Surge Current
		V _Z @ I _{ZT} (V)	I _{ZT} (mA)	Z _{ZT} @ I _{ZT} (Ω)	Z _{ZK} @ I _{ZK} (Ω)	I _{ZK} (mA)	I _R @ V _R (μA@V)	I _{ZM} (mA)	I _{RM} (mApk)	
1SMA4728A	728A	3.3	76	10	400	1	100	1	276	1380
1SMA4729A	729A	3.6	69	10	400	1	100	1	252	1260
1SMA4730A	730A	3.9	64	9	400	1	50	1	234	1190
1SMA4731A	731A	4.3	58	9	400	1	10	1	217	1070
1SMA4732A	732A	4.7	53	8	500	1	10	1	193	970
1SMA4733A	733A	5.1	49	7	550	1	10	1	178	890
1SMA4734A	734A	5.6	45	5	600	1	10	2	162	810
1SMA4735A	735A	6.2	41	2	700	1	10	3	146	730
1SMA4736A	736A	6.8	37	3.5	700	1	50	4	133	660
1SMA4737A	737A	7.5	34	4	700	0.5	50	5	121	605
1SMA4738A	738A	8.2	31	4.5	700	0.5	50	6	110	550
1SMA4739A	739A	9.1	28	5	700	0.5	50	7	100	500
1SMA4740A	740A	10	25	7	700	0.25	50	7.6	91	454
1SMA4741A	741A	11	23	8	700	0.25	50	8.4	83	414
1SMA4742A	742A	12	21	9	700	0.25	5	9.1	76	380
1SMA4743A	743A	13	19	10	700	0.25	5	9.9	69	344
1SMA4744A	744A	15	17	14	700	0.25	5	11.4	61	305
1SMA4745A	745A	16	15.5	16	700	0.25	5	12.2	57	285
1SMA4746A	746A	18	14	20	750	0.25	5	13.7	50	250
1SMA4747A	747A	20	12.5	22	750	0.25	5	15.2	45	225
1SMA4748A	748A	22	11.5	23	750	0.25	5	16.7	41	205
1SMA4749A	749A	24	10.5	25	750	0.25	5	18.2	38	190
1SMA4750A	750A	27	9.5	35	750	0.25	5	20.6	34	170
1SMA4751A	751A	30	8.5	40	1000	0.25	5	22.8	30	150
1SMA4752A	752A	33	7.5	45	1000	0.25	5	25.1	27	135
1SMA4753A	753A	36	7.0	50	1000	0.25	5	27.4	25	125
1SMA4754A	754A	39	6.5	60	1000	0.25	5	29.7	23	115
1SMA4755A	755A	43	6.0	70	1500	0.25	5	32.7	22	110
1SMA4756A	756A	47	5.5	80	1500	0.25	5	35.8	19	95
1SMA4757A	757A	51	5.0	95	1500	0.25	5	38.8	18	90
1SMA4758A	758A	56	4.5	110	2000	0.25	5	42.6	16	80
1SMA4759A	759A	62	4.0	125	2000	0.25	5	47.1	14	70
1SMA4760A	760A	68	3.7	150	2000	0.25	5	51.7	13	65
1SMA4761A	761A	75	3.3	175	2000	0.25	5	56	12	60
1SMA4762A	762A	82	3.0	200	3000	0.25	5	62.2	11	55
1SMA4763A	763A	91	2.8	250	3000	0.25	5	69.2	10	50
1SMA4764A	764A	100	2.5	350	3000	0.25	5	76	9	45

Notes:

- (1) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$
- (2) The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per method.

▶ Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)

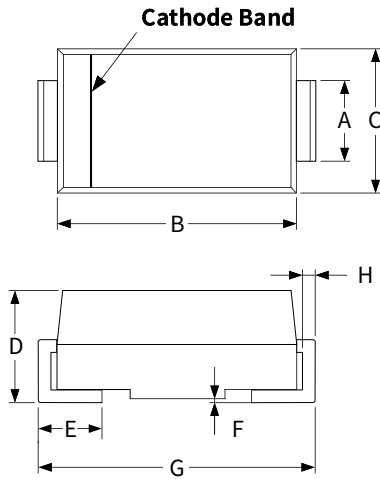


▶ Ordering Information

PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SMA	R2	0.07	5000	10000	80000	11"
SMA	R3	0.07	7500	15000	120000	13"

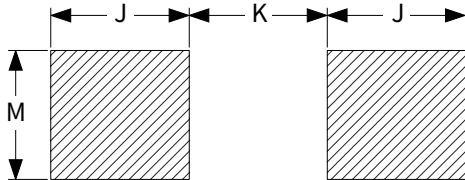
▶ Package Outline Dimensions (SMA/DO-214AC)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.25	1.65	0.049	0.065
B	3.95	4.65	0.156	0.183
C	2.35	2.85	0.093	0.112
D	1.98	2.41	0.078	0.095
E	0.76	1.52	0.030	0.060
F	-	0.203	-	0.008
G	4.70	5.30	0.185	0.209
H	0.15	0.31	0.006	0.012



▶ Suggested Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
M	1.70	-	0.067	-
J	2.10	-	0.082	-
K	-	2.30	-	0.090



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