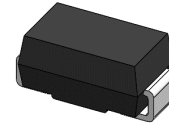


3W,10 - 200V Zener Diodes

Features

- Low leakage current
- Available in unidirectional
- Glass passivated junction
- Zener voltage tolerance is $\pm 5\%$
- Total power dissipation: Max 3W
- Moisture sensitivity: level 1, per J-STD-020
- Halogen-free according to IEC 61249-2-21 definition



SMA(DO-214AC)

Applications

Protection from high voltage, high energy transients, voltage stabilization.

Absolute Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)			
Parameter	Symbol	Ratings	Unit
Zener voltage	V_Z	See Next Table	V
Power dissipation at $T_L=75^\circ\text{C}$	P_{tot}	3	W
Maximum instantaneous forward voltage at 200mA	V_F	1.2	V
Typical Thermal Resistance , Junction to Ambient	$R_{\theta JA}$	90	$^\circ\text{C/W}$
Typical Thermal Resistance , Junction to Case	$R_{\theta JC}$	20	$^\circ\text{C/W}$
Typical Thermal Resistance , Junction to Lead	$R_{\theta JL}$	25	$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Note:

1. The thermal resistance from junction to ambient, case or lead, mounted on P.C.B with 5×5mm copper pads



3.0SMAZ10A thru 3.0SMAZ200A

GOOD-ARK Electronics

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number	Marking	Vz at IZT (V)			IZT (mA)	Maximum zener impedance		IZK (mA)	Maximum reverse leakage at VR (μA)	Test voltage VR (V)	Maximum Zener Current
		Min	Typ	Max		ZZT at IZT (Ω)	ZZK at IZK (Ω)				IZM (mA)
3.0SMAZ10A	925A	9.50	10	10.50	37.5	4.5	500	0.25	2.5	8.0	300
3.0SMAZ11A	926A	10.45	11	11.55	34.1	5.5	550	0.25	0.5	8.4	272
3.0SMAZ12A	927A	11.40	12	12.60	31.2	6.5	550	0.25	0.5	9.1	250
3.0SMAZ13A	928A	12.35	13	13.65	28.8	7	550	0.25	0.5	9.9	230
3.0SMAZ15A	929A	14.25	15	15.75	25.0	9	600	0.25	0.5	11.4	200
3.0SMAZ16A	930A	15.20	16	16.80	23.4	10	600	0.25	0.5	12.2	186
3.0SMAZ18A	931A	17.10	18	18.90	20.8	12	650	0.25	0.5	13.7	166
3.0SMAZ20A	932A	19.00	20	21.00	18.7	14	650	0.25	0.5	15.2	150
3.0SMAZ22A	933A	20.90	22	23.10	17.0	17.5	650	0.25	0.5	16.7	156
3.0SMAZ24A	934A	22.80	24	25.20	15.6	19	700	0.25	0.5	18.2	124
3.0SMAZ27A	935A	25.65	27	28.35	13.9	23	700	0.25	0.5	20.6	110
3.0SMAZ30A	936A	28.50	30	31.50	12.5	26	750	0.25	0.5	22.8	100
3.0SMAZ33A	937A	31.35	33	34.65	11.4	33	800	0.25	0.5	25.1	90
3.0SMAZ36A	938A	34.20	36	37.80	10.4	38	850	0.25	0.5	27.4	82
3.0SMAZ39A	939A	37.05	39	40.95	9.6	45	900	0.25	0.5	29.7	76
3.0SMAZ43A	940A	40.85	43	45.15	8.7	53	950	0.25	0.5	32.7	68
3.0SMAZ47A	941A	44.65	47	49.35	8.0	67	1000	0.25	0.5	35.8	62
3.0SMAZ51A	942A	48.45	51	53.55	7.3	70	1100	0.25	0.5	38.8	58
3.0SMAZ56A	943A	53.20	56	58.80	6.7	86	1300	0.25	0.5	42.6	52
3.0SMAZ62A	944A	58.90	62	65.10	6.0	100	1500	0.25	0.5	47.1	48
3.0SMAZ68A	945A	64.60	68	71.40	5.5	120	1700	0.25	0.5	51.7	44
3.0SMAZ75A	946A	71.25	75	78.75	5.0	140	2000	0.25	1	56.0	40
3.0SMAZ82A	947A	77.90	82	86.10	4.6	160	2500	0.25	1	62.2	36
3.0SMAZ91A	948A	86.45	91	95.55	4.1	200	3000	0.25	1	69.2	32
3.0SMAZ100A	949A	95.0	100	105.0	3.7	250	3100	0.25	1	76.0	30
3.0SMAZ110A	950A	104.5	110	115.5	3.4	300	4000	0.25	1	83.6	26
3.0SMAZ120A	951A	114.0	120	126.0	3.1	380	4500	0.25	1	91.2	24
3.0SMAZ130A	952A	123.5	130	136.5	2.9	450	5000	0.25	1	98.8	22
3.0SMAZ150A	953A	142.5	150	157.5	2.5	600	6000	0.25	1	114.0	20
3.0SMAZ160A	954A	152.0	160	168.0	2.3	700	6500	0.25	1	121.6	18
3.0SMAZ180A	955A	171.0	180	189.0	2.1	900	7000	0.25	1	136.8	16
3.0SMAZ200A	956A	190.0	200	210.0	1.9	1200	8000	0.25	1	152.0	14

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

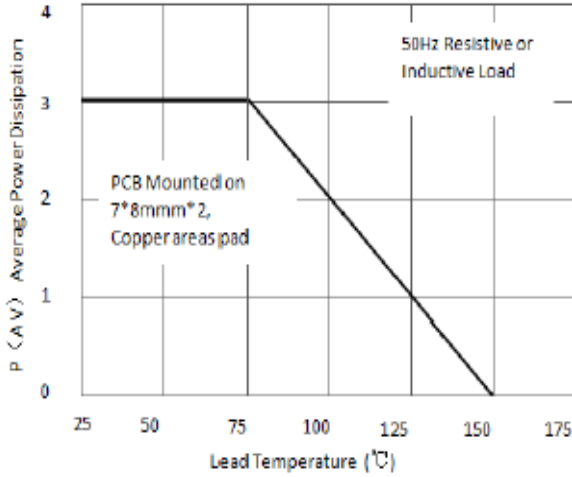


Fig.1 Maximum Continuous Power Dissipation

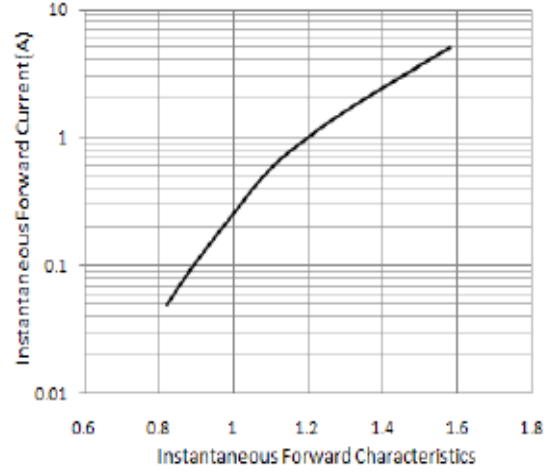


Fig.2 Typical Instantaneous Forward Characteristics

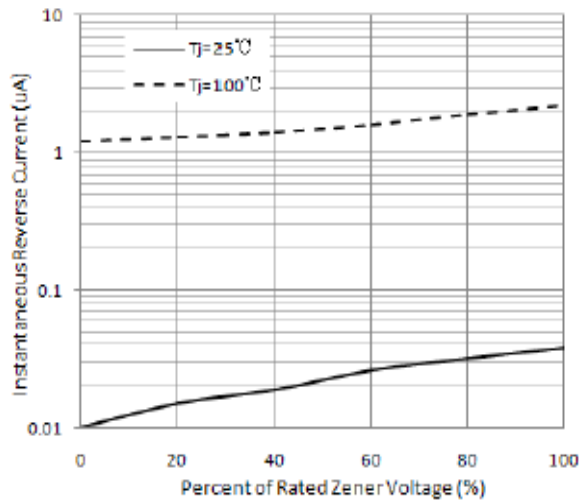


Fig.3 Typical Reverse Characteristics

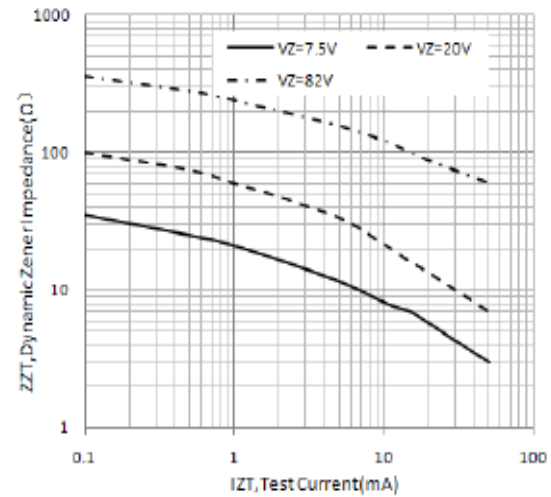
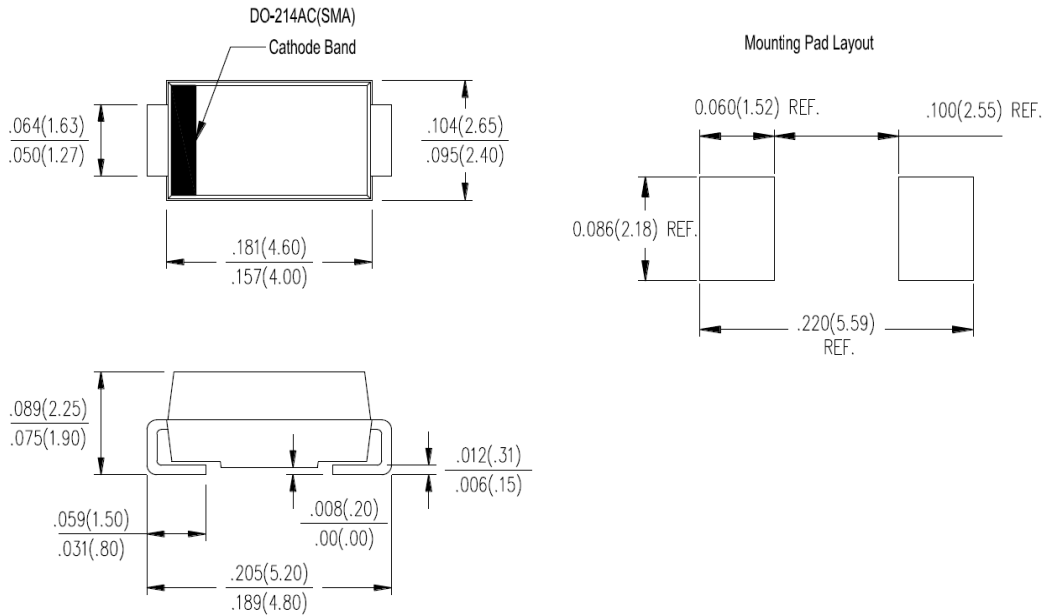


Fig.4 Typical Zener Impedance

Package Outline Dimensions

in inches (millimeters)

SMA (DO-214AC)



Revision History

Document Version	Date of release	Description of changes
Rev.A	2021.06.15	Released Datasheet
Rev.B	2023.10.11	Modify document format



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