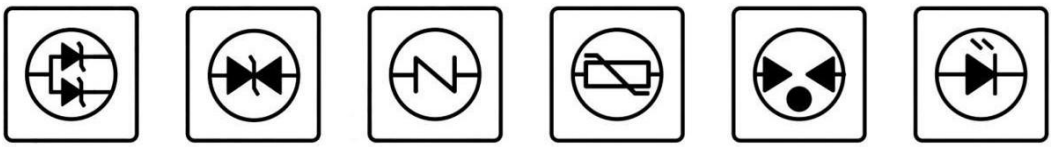
MSKSEMI 美森科
SEMICONDUCTOR



SMAZXX-MS

Product specification

SURFACE MOUNT SILICON ZENER DIODES

VZ : 5.1 - 39 Volts

PD : 1 Watt

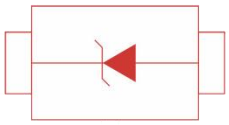
FEATURES

- Complete Voltage Range 5.1 to 39 Volts
- High Surge Capability
- Ideally Suited for Automatic Assembly
- Standard VZ Tolerance is ± 5%
- Pb / RoHS Free

ECHANICAL DATA

- Case : SMA Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.060 gram (Approximately)

Reference News

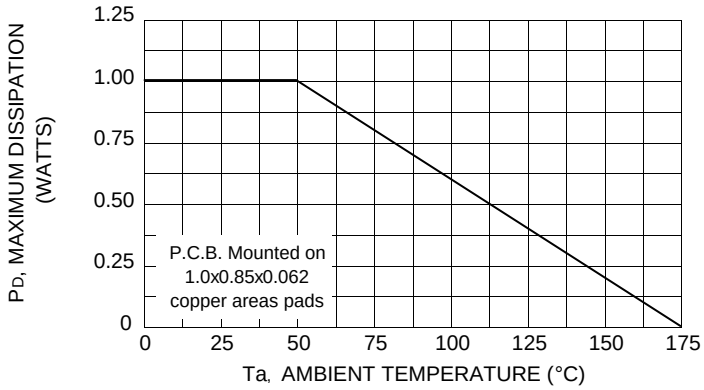
PACKAGE OUTLINE	PIN CONFIGURATION	Marking Information
 SMA(DO-214AC)		 Notes :SMAZ5V1-MS=Z5V1 SMAZ5V6-MS=Z5V6 SMAZ6V2-MS=Z6V2 And so on ....

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at Ta = 50 °C (Note1)	P_D	1.0	W
Maximum Forward Voltage at I_F = 200 mA	V_F	1.2	V
Temperature Resistance Junction to Ambient (Note 1)	$R_{\theta JA}$	125	°C
Junction and Storage Temperature Range	T_{STG}	- 65 to + 150	°C

Fig. 1 MAXIMUM CONTINUOUS POWER DERATING



ELECTRICAL CHARACTERISTICS

Rating at25 °C ambient temperature unless otherwise specified

Type Number	Making	Zener Voltage(2) V_Z @ I_{ZT}				Maximum Zener Impedance			Maximum Reverse Leakage Current, I_R		Maximum DC Zener Current(1) I_{ZM} (mA)
		Nom	Min	Max	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R @	V_R	
		(V)	(V)	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	
SMAZ5V1-MS	Z5V1	5.1	4.84	5.40	100	5.0	500	1.0	2.5	1.0	196
SMAZ5V6-MS	Z5V6	5.6	5.32	5.88	100	2.0	250	2.0	5.0	2.0	179
SMAZ6V2-MS	Z6V2	6.2	5.89	6.51	100	2.0	200	2.0	5.0	3.0	161
SMAZ6V8-MS	Z6V8	6.8	6.46	7.14	100	2.0	200	1.0	5.0	4.0	147
SMAZ7V5-MS	Z7V5	7.5	7.13	7.88	100	2.0	450	1.0	5.0	5.0	133
SMAZ8V2-MS	Z8V2	8.2	7.79	8.61	100	2.0	200	1.0	5.0	6.0	122
SMAZ9V1-MS	Z9V1	9.1	8.65	9.56	50	4.0	200	1.0	5.0	7.0	10
SMAZ10-MS	Z10	10.0	9.50	10.50	50	4.0	200	1.0	1.0	7.6	100
SMAZ12-MS	Z12	12.0	11.40	12.60	50	7.0	150	1.0	1.0	9.1	83
SMAZ15-MS	Z15	15.0	14.25	15.75	50	10	150	1.0	1.0	11.4	67
SMAZ16-MS	Z16	16.0	15.20	16.80	25	15	150	1.0	0.5	12.2	63
SMAZ18-MS	Z18	18.0	17.10	18.90	25	15	150	1.0	0.5	13.7	56
SMAZ20-MS	Z20	20.0	19.00	21.00	25	15	180	1.0	0.5	15.2	50
SMAZ22-MS	Z22	22.0	20.90	23.10	25	15	180	1.0	0.5	16.7	45
SMAZ24-MS	Z24	24.0	22.80	25.20	25	15	180	1.0	0.5	18.2	42
SMAZ27-MS	Z27	27.0	25.65	28.35	25	15	200	1.0	0.5	20.5	37
SMAZ30-MS	Z30	30.0	28.50	31.50	25	15	250	1.0	0.5	22.8	33
SMAZ33-MS	Z33	33.0	31.35	34.65	25	15	300	1.0	0.5	25.1	30
SMAZ36-MS	Z36	36.0	34.20	37.80	10	40	350	1.0	0.5	27.4	28
SMAZ39-MS	Z39	39.0	37.05	40.95	10	40	450	1.0	0.5	29.6	26

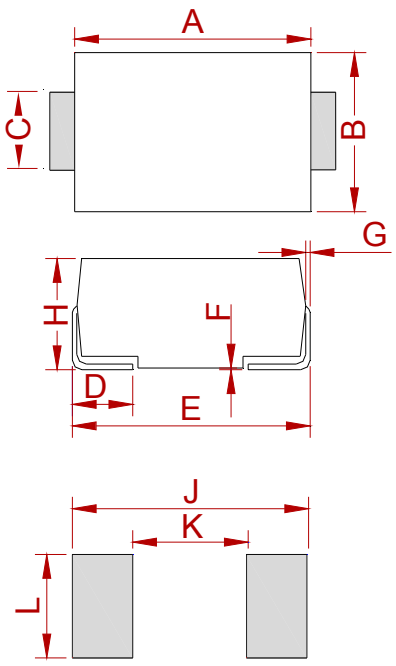
Notes :

(1) P.C.B. Mounted on 1.0" x 0.85" x 0.062" copper areas pads.

(2) Short duration test pulse used to minimize self-heating effect.

(3) "SMA" will be omitted in marking on the diode.

PACKAGE MECHANICAL DATA



DO-214AC (SMA)

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.25	4.65	0.167	0.183
B	2.50	2.90	0.098	0.114
C	1.35	1.65	0.053	0.065
D	0.76	1.52	0.030	0.060
E	4.93	5.28	0.194	0.208
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	1.98	2.41	0.078	0.095
J	6.50		0.256	
K		2.30		0.090
L	1.70		0.067	

REEL SPECIFICATION

P/N	PKG	QTY
SMAZXX-MS	SMA	2000

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