Micro Commercial Components

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3SMAJ5913B THRU 3SMAJ5943B

3.0 Watt Surface Mount Silicon Zener Diodes

Features

- Surface Mount Application
- 3.3 thru 56 Volt Voltage Range
- Low Inductance,Low Profile Mounting
- Glass Passivated Junction
- High specified maximum current (IZM) when adequately heat sinking

Mechanical Data

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals solderable per MIL-STD-750, Method 2026
- Polarity is indicated by cathode band.
- Packaging: Standard 12mm Tape (see EIA 481)
- Maximum temperature for soldering: 260°C for 10 seconds.

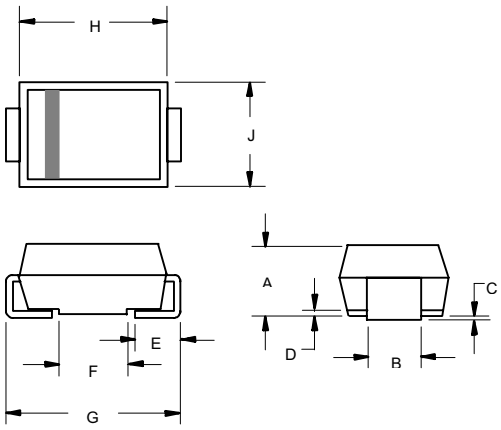
Maximum Ratings @ 25°C Unless Otherwise Specified

Maximum Forward Voltage	V_F	1.5V	(Note: 1)
Steady State Power Dissipation	P_d	3.0W	(Note: 2)
Operation and Storage Temperature	T_J, T_{STG}	-55°C to +150°C	
Thermal Resistance Junction to Lead	R_{thJL}	25℃/W	

NOTES:

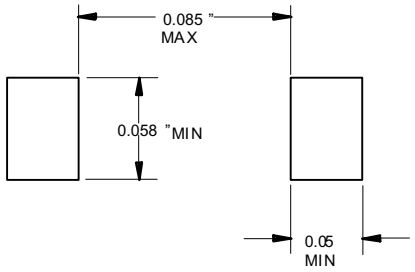
1. Forward Current @ 200mA.
2. Mounted on 5.0mm^2 (.013mm thick) land areas.
   Lead temperature at T_L=75°C

DO-214AC
(SMA) (LEAD FRAME)



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.079	.096	2.00	2.44	
B	.050	.064	1.27	1.63	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
F	.065	.091	1.65	2.32	
G	.189	.220	4.80	5.59	
H	.157	.181	4.00	4.60	
J	.090	.115	2.25	2.92	

SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL CHARACTERISTICS (T_L=30C unless otherwise noted) (V_F=1.5Volts Max @ I_F=200mAdc for all types.)

MCC PART NUMBER	ZENER VOLTAGE V_Z (1)	TEST CURRENT I_{ZT}	MAXIMUM DYNAMIC IMPEDANCE Z_{ZT} @ I_{ZT}	KNEE CURRENT I_{ZK}	KNEE IMPEDANCE Z_{ZK}	MAXIMUM REVERSE CURRENT I_R	REVERSE VOLTAGE V_R	Maximum DC Zener Current I_{ZM} mAdc	DEVICE MARKING
	VOLTS	mA	OHMS	mA	OHMS	µA	VOLTS	mA	
3SMAJ5913B	3.3	113.6	10.0	1.0	500	100	1.0	908	H 13B
3SMAJ5914B	3.6	104.2	9.0	1.0	500	75	1.0	832	H 14B
3SMAJ5915B	3.9	96.1	7.5	1.0	500	25	1.0	768	H 15B
3SMAJ5916B	4.3	87.2	6.0	1.0	500	5.0	1.0	696	H 16B
3SMAJ5917B	4.7	79.8	5.0	1.0	500	5.0	1.5	638	H 17B
3SMAJ5918B	5.1	73.5	4.0	1.0	350	5.0	2.0	588	H 18B
3SMAJ5919B	5.6	66.9	2.0	1.0	250	5.0	3.0	534	H 19B
3SMAJ5920B	6.2	60.5	2.0	1.0	200	5.0	4.0	482	H 20B
3SMAJ5921B	6.8	55.1	2.5	1.0	200	5.0	5.2	440	H 21B
3SMAJ5922B	7.5	50.0	3.0	0.5	400	5.0	6.0	400	H 22B
3SMAJ5923B	8.2	45.7	3.5	0.5	400	5.0	6.5	364	H 23B
3SMAJ5924B	9.1	41.2	4.0	0.5	500	5.0	7.0	328	H 24B
3SMAJ5925B	10	37.5	4.5	0.25	500	5.0	8.0	300	H 25B
3SMAJ5926B	11	34.1	5.5	0.25	550	1.0	8.4	272	H 26B
3SMAJ5927B	12	31.2	6.5	0.25	550	1.0	9.1	250	H 27B
3SMAJ5928B	13	28.8	7.0	0.25	550	1.0	9.9	230	H 28B
3SMAJ5929B	15	25.0	9.0	0.25	600	1.0	11.4	200	H 29B
3SMAJ5930B	16	23.4	10.0	0.25	600	1.0	12.2	186	H 30B
3SMAJ5931B	18	20.8	12.0	0.25	650	1.0	13.7	166	H 31B
3SMAJ5932B	20	18.7	14.0	0.25	650	1.0	15.2	150	H 31B
3SMAJ5933B	22	17.0	17.5	0.25	650	1.0	16.7	136	H 33B
3SMAJ5934B	24	15.6	19.0	0.25	700	1.0	18.2	124	H 34B
3SMAJ5935B	27	13.9	23.0	0.25	700	1.0	20.6	110	H 35B
3SMAJ5936B	30	12.5	28.0	0.25	750	1.0	22.8	100	H 36B
3SMAJ5937B	33	11.4	33.0	0.25	800	1.0	25.1	90	H 37B
3SMAJ5938B	36	10.4	38.0	0.25	850	1.0	27.4	82	H 38B
3SMAJ5939B	39	9.6	45.0	0.25	900	1.0	29.7	76	H 39B
3SMAJ5940B	43	8.7	53.0	0.25	950	1.0	32.7	68	H 40B
3SMAJ5941B	47	8.0	67.0	0.25	1000	1.0	35.8	62	H 41B
3SMAJ5942B	51	7.3	70.0	0.25	1100	1.0	38.8	58	H 42B
3SMAJ5943B	56	6.7	86.0	0.25	1300	1.0	42.6	52	H 43B

Note 1: TOLERANCE AND VOLTAGE DESIGNATION - The type numbers listed indicate a tolerance of +/- 5%.

RATING AND CHARACTERISTICS CURVES

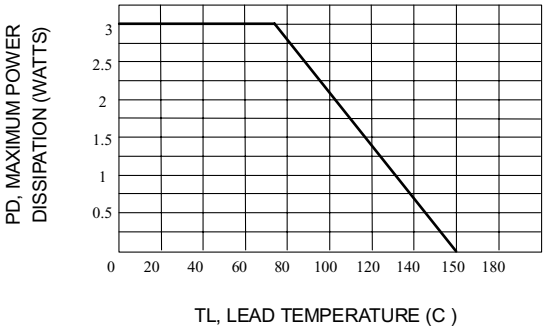


Fig. 1-STEADY STATE POWER DERATING

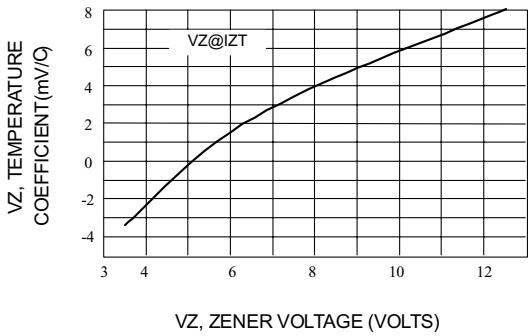


Fig. 2-ZENER VOLTAGE- 3 TO 12 VOLTS

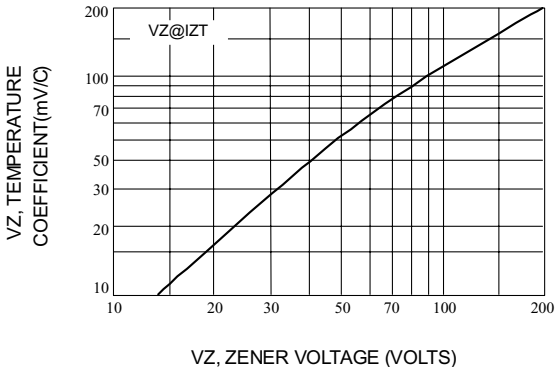


Fig. 3-ZENER VOLTAGE-10 TO 200 VOLTS

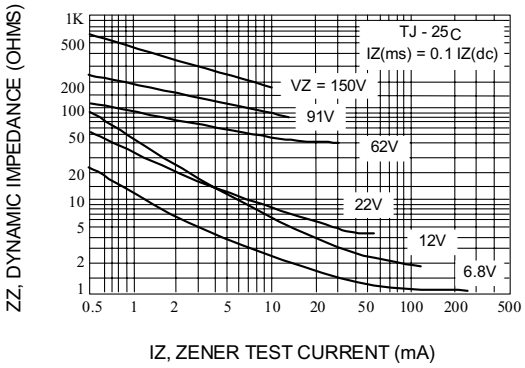
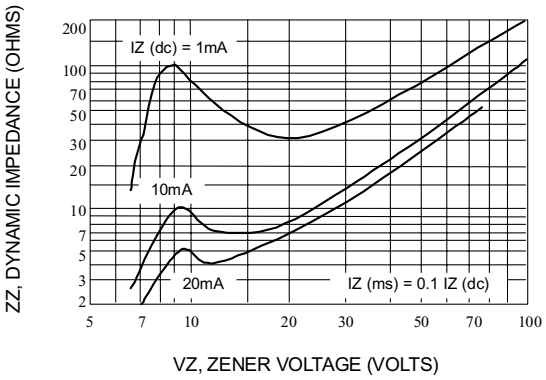
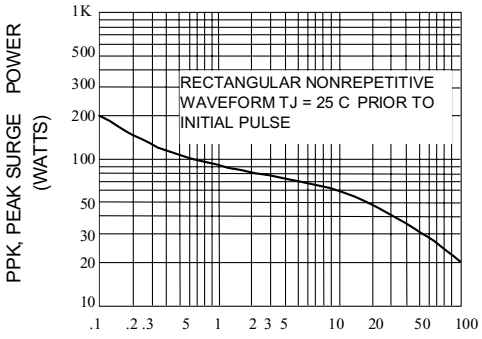


Fig. 4-EFFECT OF ZENER CURRENT





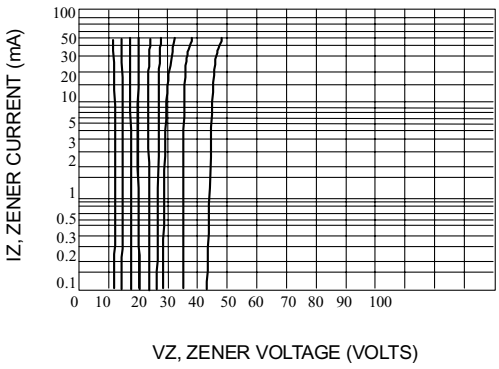


Fig. 7-VZ = 12 THRU 40 VOLTS

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