

3SMBJ5918B THRU 3SMBJ5956B

3.0 Watt Surface Mount Silicon Zener Diodes

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- 5.1 thru 200 Volt Voltage Range
- Low Inductance, Low Profile Mounting
- Glass Passivated Junction
- Available On Tape and Reel
- Halogen free available upon request by adding suffix "-HF"
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

Mechanical Data

- 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.

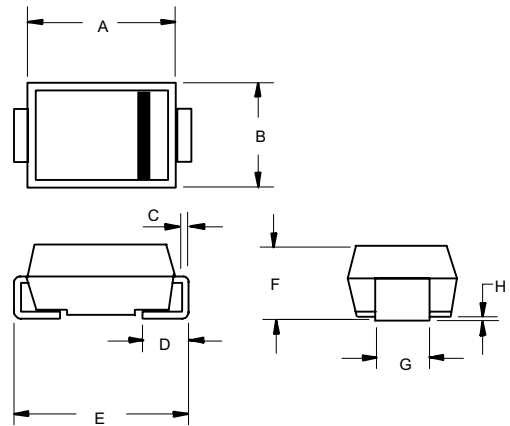
Maximum Ratings @ 25°C Unless Otherwise Specified

Maximum Forward Voltage	V _F	1.5V	(Note: 2)
Steady State Power Dissipation	P _d	3.0W	(Note: 3)
Operation and Storage Temperature	T _J , T _{STG}	-65°C to +150 °C	
Thermal Resistance Junction to Ambient	R _{thJA}	42°C /W	

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

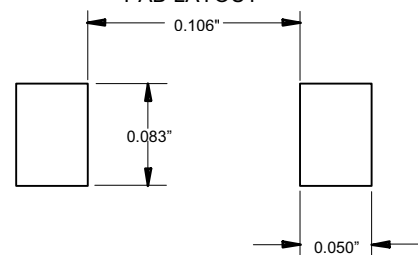
2. Forward Current @ 200mA.
3. Mounted on 5.0mm² (1oz thick) land areas.
Lead temperature at T_L=75°C

DO-214AA (SMB) (LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.160	.185	4.06	4.70	
B	.130	.155	3.30	3.94	
C	.006	.012	0.15	0.31	
D	.030	.060	0.76	1.52	
E	.200	.220	5.08	5.59	
F	.079	.096	2.00	2.44	
G	.075	.087	1.91	2.21	
H	.002	.008	0.05	0.203	

SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL CHARACTERISTICS(TL=30 centigrade unless otherwise noted) (VF=1.5Volts Max @IF=200mAdc for all types.

MCC PART NUMBER	ZENER VOLTAGE VZ (*)	TEST CURRENT IZT	MAXIMUM DYNAMIC IMPEDANCE ZZT @IZT	KNEE CURRENT IZK	KNEE IMPEDANCE ZZK	MAXIMUM REVERSE CURRENT IR	REVERSE VOLTAGE VR	DEVICE MARKING
	VOLTS	mA	OHMS	mA	OHMS	μA	VOLTS	
3SMBJ5918B	5.1	73.5	4	1	350	5	2	H18B
3SMBJ5919B	5.6	66.9	2	1	250	5	3	H19B
3SMBJ5920B	6.2	60.5	2	1	200	5	4	H20B
3SMBJ5921B	6.8	55.1	2.5	1	200	5	5.2	H21B
3SMBJ5922B	7.5	50	3	0.5	400	5	6	H22B
3SMBJ5923B	8.2	45.7	3.5	0.5	400	5	6.5	H23B
3SMBJ5924B	9.1	41.2	4	0.5	500	5	7	H24B
3SMBJ5925B	10	37.5	4.5	0.25	500	5	8	H25B
3SMBJ5926B	11	34.1	5.5	0.25	550	1	8.4	H26B
3SMBJ5927B	12	31.2	6.5	0.25	550	1	9.1	H27B
3SMBJ5928B	13	28.8	7	0.25	550	1	9.9	H28B
3SMBJ5929B	15	25	9	0.25	600	1	11.4	H29B
3SMBJ5930B	16	23.4	10	0.25	600	1	12.2	H30B
3SMBJ5931B	18	20.8	12	0.25	650	1	13.7	H31B
3SMBJ5932B	20	18.7	14	0.25	650	1	15.2	H32B
3SMBJ5933B	22	17	17.5	0.25	650	1	16.7	H33B
3SMBJ5934B	24	15.6	19	0.25	700	1	18.2	H34B
3SMBJ5935B	27	13.9	23	0.25	700	1	20.6	H35B
3SMBJ5936B	30	12.5	28	0.25	750	1	22.8	H36B
3SMBJ5937B	33	11.4	33	0.25	800	1	25.1	H37B
3SMBJ5938B	36	10.4	38	0.25	850	1	27.4	H38B
3SMBJ5939B	39	9.6	45	0.25	900	1	29.7	H39B
3SMBJ5940B	43	8.7	53	0.25	950	1	32.7	H40B
3SMBJ5941B	47	8	67	0.25	1000	1	35.8	H41B
3SMBJ5942B	51	7.3	70	0.25	1100	1	38.8	H42B
3SMBJ5943B	56	6.7	86	0.25	1300	1	42.6	H43B
3SMBJ5944B	62	6	100	0.25	1500	1	47.1	H44B
3SMBJ5945B	68	5.5	120	0.25	1700	1	51.7	H45B
3SMBJ5946B	75	5	140	0.25	2000	1	56	H46B
3SMBJ5947B	82	4.6	160	0.25	2500	1	62.2	H47B
3SMBJ5948B	91	4.1	200	0.25	3000	1	69.2	H48B
3SMBJ5949B	100	3.7	250	0.25	3100	1	76	H49B
3SMBJ5950B	110	3.4	300	0.25	4000	1	83.6	H50B
3SMBJ5951B	120	3.1	380	0.25	4500	1	91.2	H51B
3SMBJ5952B	130	2.9	450	0.25	5000	1	98.8	H52B
3SMBJ5953B	150	2.5	600	0.25	6000	1	114	H53B
3SMBJ5954B	160	2.3	700	0.25	6500	1	121.6	H54B
3SMBJ5955B	180	2.1	900	0.25	7000	1	136.8	H55B
3SMBJ5956B	200	1.9	1200	0.25	8000	1	152	H56B

* TOLERANCE AND VOLTAGE DESIGNATION Tolerance designation - The type numbers listed indicate a tolerance of +/-5%

RATING AND CHARACTERISTICS CURVES

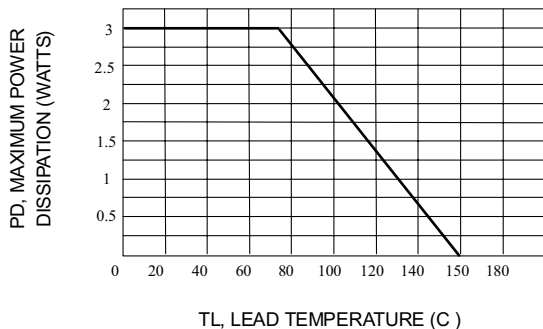


Fig. 1-STEADY STATE POWER DERATING

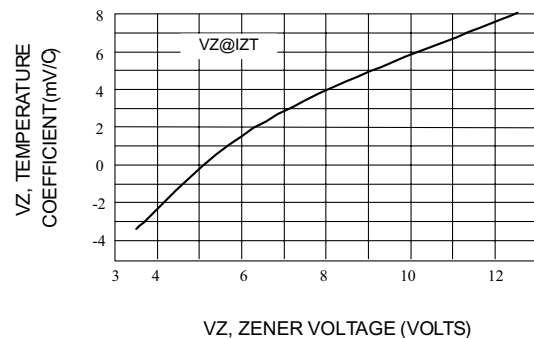


Fig. 2-ZENER VOLTAGE- 5.1 TO 12 VOLTS

RATING AND CHARACTERISTICS CURVES

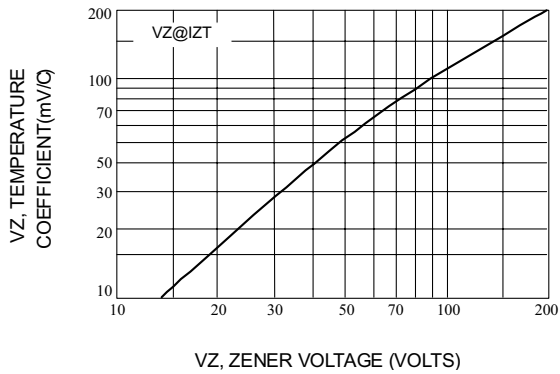


Fig. 3-ZENER VOLTAGE-10 TO 200 VOLTS

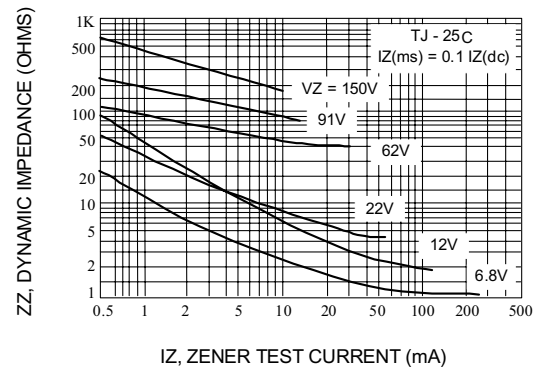


Fig. 4-EFFECT OF ZENER CURRENT

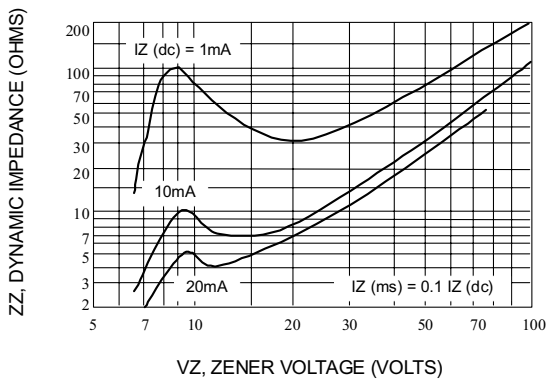


Fig. 5-EFFECT OF ZENER VOLTAGE

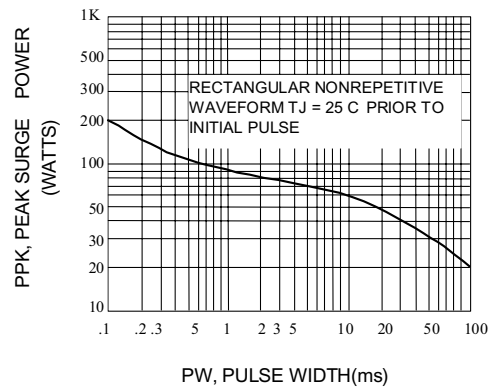


Fig. 6- PULSE RATING CURVE

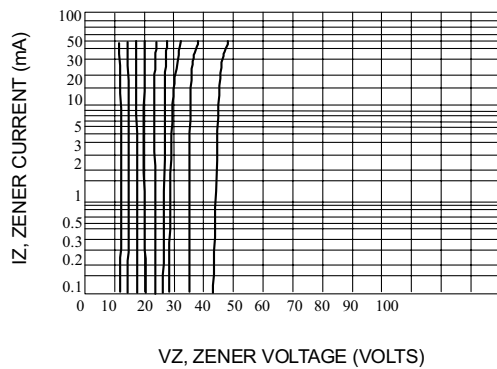


Fig. 7-VZ = 12 THRU 40 VOLTS

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.