



Micro Commercial Components



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# 3SMBJ5913B THRU 3SMBJ5916B

## 3.0 Watt Surface Mount Silicon Zener Diodes

### Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- 3.3 thru 4.3 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

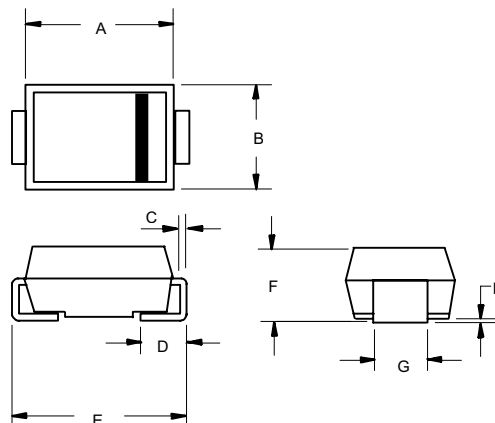
### Mechanical Data

- 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

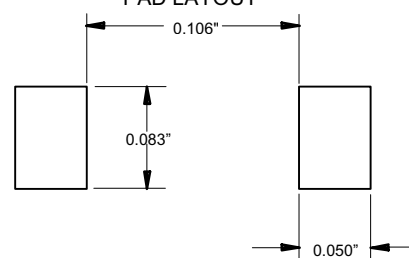
Maximum Forward Voltage	V <sub>F</sub>	1.5V	(Note: 2)
Steady State Power Dissipation	P <sub>d</sub>	3.0W	(Note: 3)
Operation and Storage Temperature	T <sub>J</sub> , T <sub>STG</sub>	-65°C to +150°C	
Thermal Resistance Junction to Ambient	R <sub>thJA</sub>	42°C /W	

### 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	.008	.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



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

2. Forward Current @ 200mA.
3. Mounted on 5.0mm<sup>2</sup> (1oz thick) land areas.  
Lead temperature at T<sub>L</sub>=75°C

**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	
3SMBJ5913B	3.3	113.6	10	1	500	100	1	H13B
3SMBJ5914B	3.6	104.2	9	1	500	75	1	H14B
3SMBJ5915B	3.9	96.1	7.5	1	500	25	1	H15B
3SMBJ5916B	4.3	87.2	6	1	500	5	1	H16B

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

## RATING AND CHARACTERISTICS CURVES

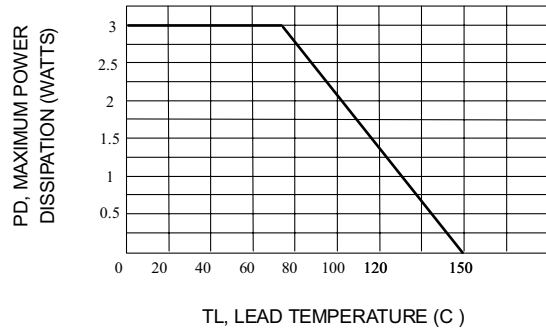


Fig. 1-STEADY STATE POWER DERATING

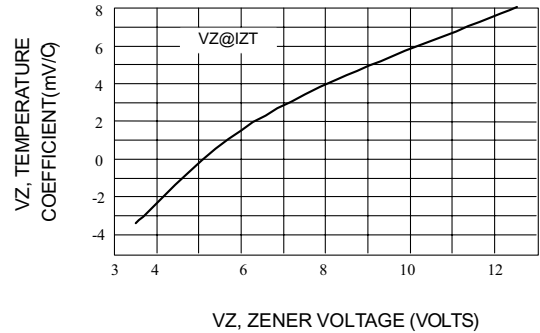


Fig. 2-ZENER VOLTAGE-3.3 TO 4.7 VOLTS

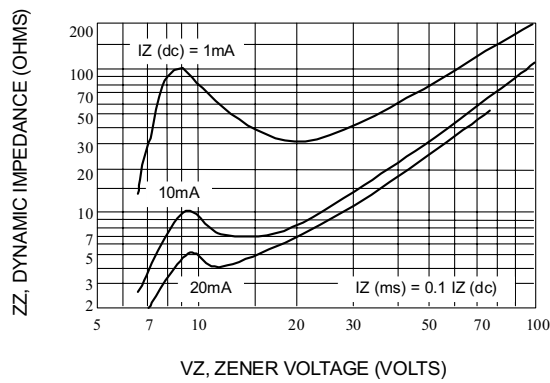


Fig. 3-EFFECT OF ZENER VOLTAGE

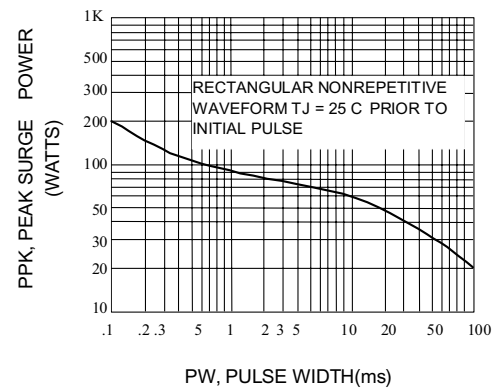


Fig. 4-PULSE RATING CURVE

## Ordering Information

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

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

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