

# 3SMAJ5913B THRU 3SMAJ5917B

## 3.0 Watt Surface Mount Silicon Zener Diodes

### Features

- 3.3thru 4.7 Volt Voltage Range
- Low Inductance, Low Profile Mounting
- Glass Passivated Junction
- High specified maximum current (IZM) when adequately heat sinking
- Lead Free Finish/Rohs Compliant (Note 1) ("P" Suffix designates Compliant. See ordering information)
- Halogen free available upon request by adding suffix "-HF"
- Surface Mount Application

### Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- 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>	-55°C to +150°C	
Thermal Resistance Junction to Lead	R <sub>thJL</sub>	25°C/W	
Thermal Resistance Junction to Ambient	R <sub>thJA</sub>	135°C/W	

- 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  
Lead temperature at T<sub>A</sub>=15°C

### DO-214AC (SMA) (LEAD FRAME)

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
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) ( $V_F=1.5$ Volts Max @  $I_F=200$ mA dc 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 $I_{ZM}$	DEVICE MARKING
	VOLTS	mA	OHMS	mA	OHMS	$\mu$ A	VOLTS	mA	
3SMAJ5913B	3.3	113.6	10	1	500	100	1	908	H13B
3SMAJ5914B	3.6	104.2	9	1	500	75	1	832	H14B
3SMAJ5915B	3.9	96.1	7.5	1	500	25	1	768	H15B
3SMAJ5916B	4.3	87.2	6	1	500	5	1	696	H16B
3SMAJ5917B	4.7	79.8	5	1	500	5	1.5	638	H17B

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

**RATING AND CHARACTERISTICS CURVES**

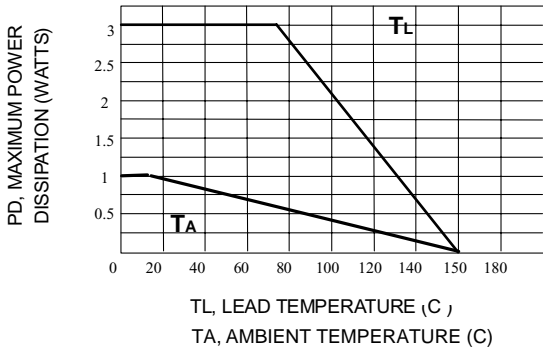


Fig. 1-STEADY STATE POWER DERATING

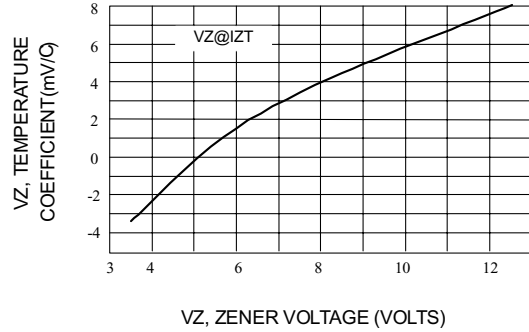


Fig. 2-ZENER VOLTAGE- 5.1 TO 12 VOLTS

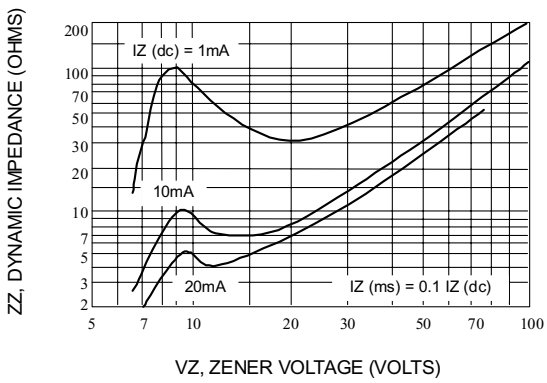


Fig. 5-EFFECT OF ZENER VOLTAGE

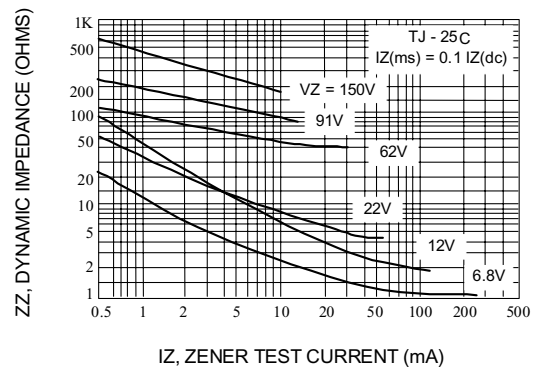


Fig. 6-EFFECT OF ZENER CURRENT

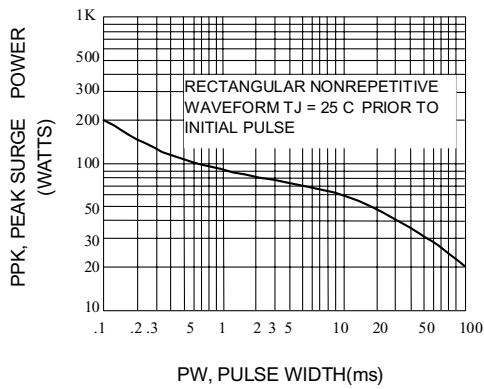


Fig. 7- PULSE RATING CURVE



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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 7.5Kpcs/Reel

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

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