



Micro Commercial Components



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**1N5913B3P
THRU
1N5917B3P**

Features

- Halogen free available upon request by adding suffix "-HF"
- Glass Passivated Junction
- Low Profile Package
- Low Inductance
- Built-in Strain Relief
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : 1N5913B3~1N5917B3 type number and Cathode Band

**3.0 Watt
Zener Diode
3.3to 4.7 Volts**

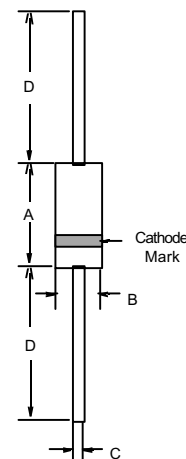
Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Forward Voltage at $I_F=200\text{mA}$	V_F	1.5	V
Power Dissipation at $T_L = 75^\circ\text{C}$	P_{tot}	$3.0^{(2)}$	W
Pwak forward Surge Current 8.3ms single half sine/square wave	I_{FSM}	10	Amps
Junction Temperature	T_J	$-55 \sim +175$	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	$-55 \sim +175$	$^\circ\text{C}$

Note1: High Temperature Solder Exemption Applied, see EU Directive Annex 7.
2. 0.375" lead length from body.

DO-41



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.160	0.205	4.10	5.20	
B	0.080	0.107	2.00	2.70	Diameter
C	0.028	0.034	0.71	0.86	Diameter
D	1.000	-----	25.40	-----	

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ELECTRICAL CHARACTERISTICS @25°C

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
	VOLTS	mA	OHMS	mA	OHMS	μA	VOLTS
1N5913B3P	3.3	113.6	10	1	500	100	1
1N5914B3P	3.6	104.2	9	1	500	75	1
1N5915B3P	3.9	96.1	7.5	1	500	25	1
1N5916B3P	4.3	87.2	6	1	500	5	1
1N5917B3P	4.7	79.8	5	1	500	5	1.5

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

Characteristics ($T_j=25^\circ\text{C}$ unless otherwise specified)

Symbol	Parameter
V_Z	Reverse zener voltage @ I_{ZT}
I_{ZT}	Reverse current
Z_{ZT}	Maximum zener impedance @ I_{ZT}
I_{ZK}	Reverse current
Z_{ZK}	Maximum zener impedance @ I_{ZK}
I_R	Reverse leakage current @ V_R
V_R	Breakdown voltage
I_F	Forward current
V_F	Forward voltage @ I_F

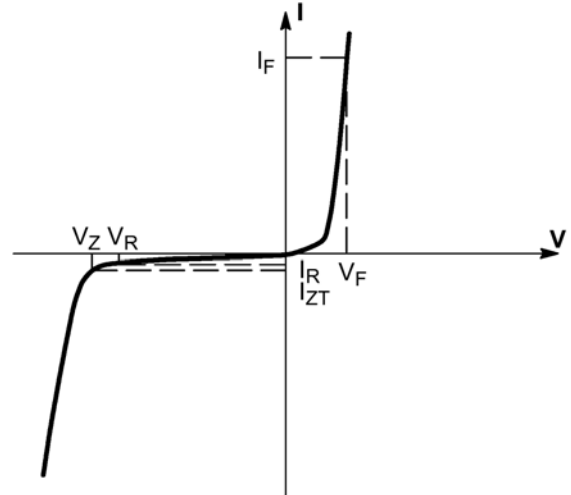


Figure 1. Zener voltage regulator

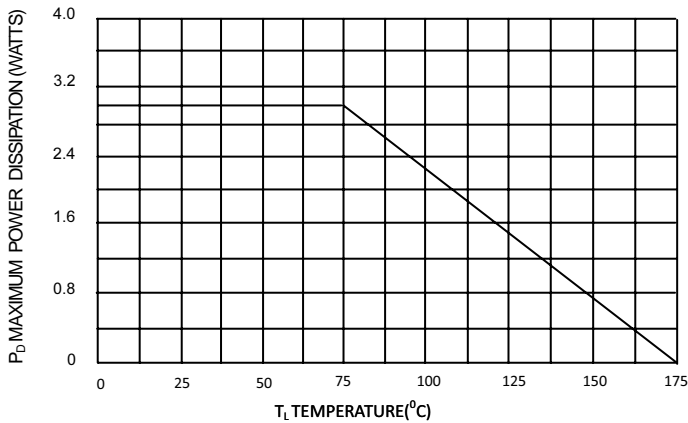


Figure 2. Steady state power derating

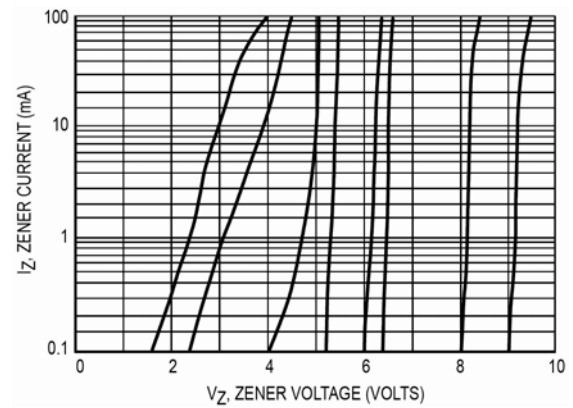


Figure 3. V_Z – 3.3 thru 4.7 volts

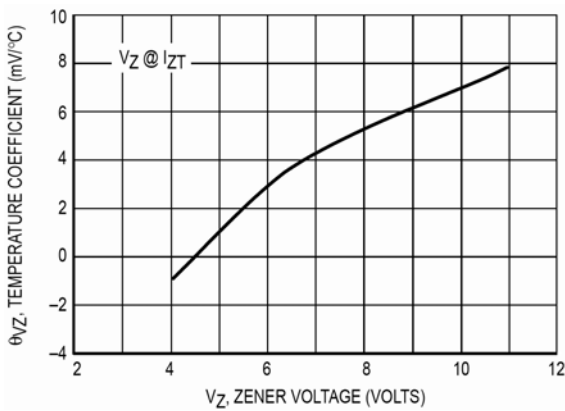


Figure 4. Zener voltage – 3.3 to 4.7 volts

Characteristics ($T_J=25^\circ\text{C}$ unless otherwise specified)

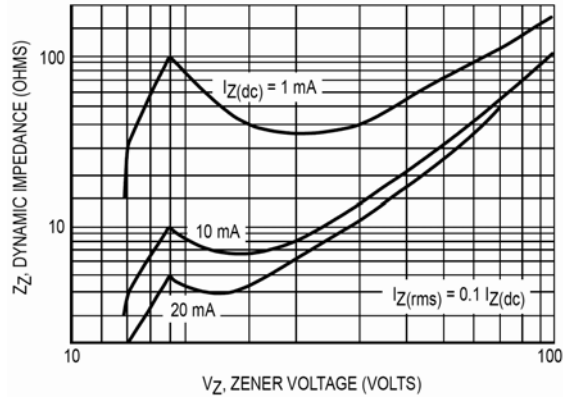


Figure 6. Effect of zener voltage

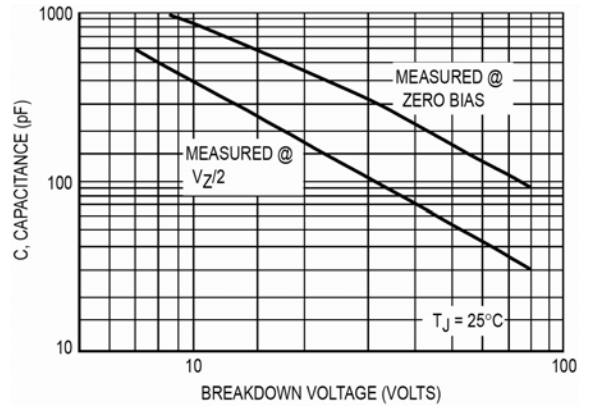


Figure 7. Capacitance curve

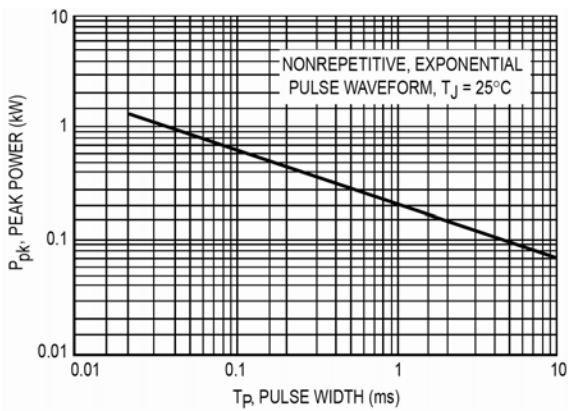


Figure 8. Typical pulse rating curve

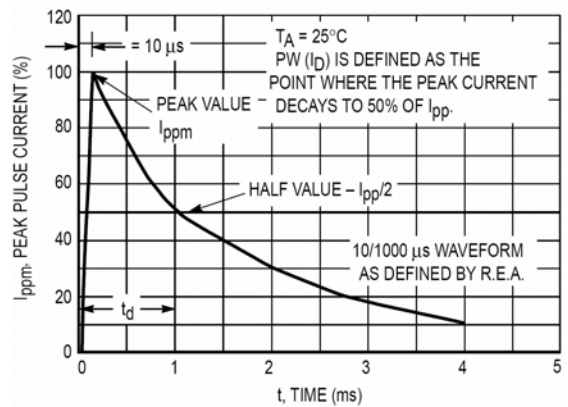


Figure 9. Pulse waveform

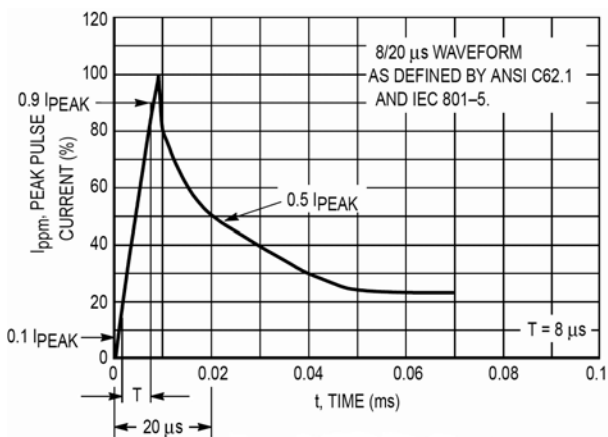


Figure 10. Pulse waveform

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel
Part Number-AP	Ammo Packing: 5Kpcs/Ammo Box
Part Number-BP	Bulk: 50Kpcs/Carton

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

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