

Micro Commercial Components



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Features

- **Glass Passivated Junction**
- Low Profile Package
- Low Inductance
- **Built-in Strain Relief**
- Halogen free available upon request by adding suffix "-HF" 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 : 1N5913B~1N5917B type number and Cathode Band

Maximum Ratings & Thermal Characteristics

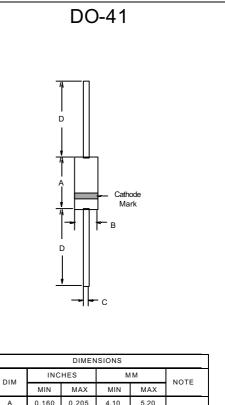
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit	
Forward Voltage at I⊧=200mA	VF	1.5	V	
Power	5	a =(2)	w	
Dissipation at	P _{tot}	1.5 ⁽²⁾		
T _L = 75° C				
Pwak forward				
Surge Current		10	Amps	
8.3ms single half	I _{FSM}			
sine/square wave				
Junction	т	-55 ~ +175	°C	
Temperature	Tj	-55 ~ +175	C	
Storage				
Temperature	T _{STG}	-55 ~ +175	°C	
Range				

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

1N5913BP THRU 1N5917BP

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



		IVITIN	INIAA	IVITIN	IWIAA	
	А	0.160	0.205	4.10	5.20	
	В	0.080	0.107	2.00	2.70	Diameter
	С	0.028	0.034	0.71	0.86	Diameter
	D	1.000		25.40		



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
1N5913BP	3.3	113.6	10	1	500	100	1
1N5914BP	3.6	104.2	9	1	500	75	1
1N5915BP	3.9	96.1	7.5	1	500	25	1
1N5916BP	4.3	87.2	6	1	500	5	1
1N5917BP	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 $(T_j=25^{\circ}C)$	unless otherwise specified)
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Symbol	Parameter
Vz	Reverse zener voltage @ I _{ZT}
I _{ZT}	Reverse current
Z _{ZT}	Maximum zener impedance @ ${\rm I}_{\rm ZT}$
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

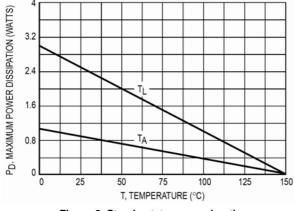


Figure 2. Steady state power derating

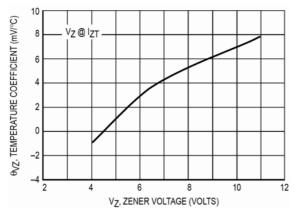


Figure 4. Zener voltage - 3.3 to 4.7 volts

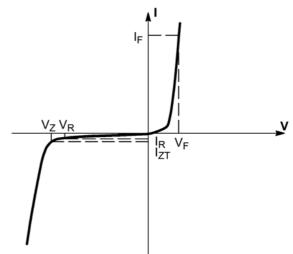


Figure 1. Zener voltage regulator

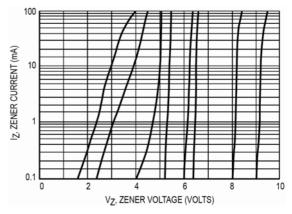


Figure 3. Vz – 3.3 thru 4.7 volts

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Revision: A



$(J_{Z}, ZENER VOLTAGE (VOLTS)$

Characteristics (T_j=25°C unless otherwise specified)

Figure 6. Effect of zener voltage

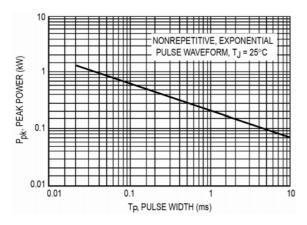


Figure 8. Typical pulse rating curve

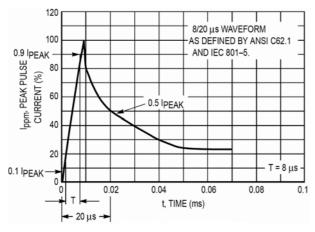


Figure 10. Pulse waveform

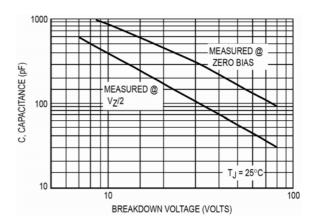


Figure 7. Capacitance curve

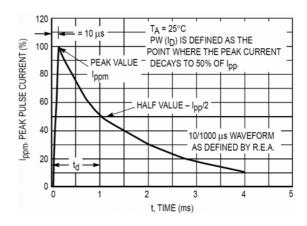


Figure 9. Pulse waveform



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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