

T-11-15

# ZGP10-100 THRU ZGP10-200

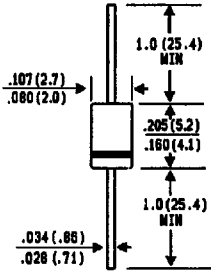
## MINIATURE GLASS PASSIVATED JUNCTION PLASTIC ZENER REGULATOR DIODE

**Voltage - 100 to 200 Volts Power Rating - 1.5 Watts**

### FEATURES

**PATENTED\***

**DO-41**



Dimensions in inches and (millimeters)

- ◆ High temperature metallurgically bonded constructed rectifiers
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Low zener impedance
- ◆ Excellent clamping capability
- ◆ Glass passivated cavity-free junction in DO-41 package
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ High temperature soldering guaranteed: 350°C/10 seconds/.375", (9.5mm) lead length at 5 lbs., (2.3kg) tension

\*Glass-plastic encapsulation technique is covered by Patent No. 3,996,802 of 1976 and brazed-lead assembly by Patent No. 3,930,306 of 1978



### MECHANICAL DATA

**Case:** JEDEC DO-41 Molded plastic over glass

**Terminals:** Plated Axial leads, solderable per MIL-STD-202, Method 208

**Polarity:** Color band denotes cathode

**Mounting Position:** Any

**Weight:** 0.012 ounce, .3 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

#### OPERATING AND STORAGE TEMPERATURE T<sub>J</sub>, T<sub>STG</sub> -65°C to +175°C

TYPE	Zener Breakdown Voltage at 5mA		Maximum Zener Dynamic Impedance				Maximum Reverse Current at Measurement Voltage, V <sub>R</sub>			Maximum Forward Voltage at .50A	Maximum Continuous Regulator Current*
	MIN	MAX	I <sub>ZT</sub>	Z <sub>ZT</sub>	I <sub>ZK</sub>	Z <sub>ZK</sub>	V <sub>R</sub>	25°C	100°C	V <sub>F</sub>	I <sub>ZM</sub>
	Volts		mA	Ohms	mA	Ohms	Volts	µA	µA	Volts	mA
ZGP10-100	80	120	5	500	.25	5000	60	0.5	100	1.0	10.0
ZGP10-110	88	132	5	600	.25	5000	70	0.5	100	1.0	9.1
ZGP10-120	96	144	5	700	.25	5000	80	0.5	100	1.0	8.3
ZGP10-130	104	156	5	800	.25	5000	90	0.5	100	1.0	7.7
ZGP10-140	112	168	5	900	.25	5500	100	0.5	100	1.0	7.1
ZGP10-150	120	180	5	1000	.25	6000	110	0.5	100	1.0	6.6
ZGP10-160	140	170	5	1100	.25	6500	120	0.5	100	1.0	6.3
ZGP10-170	136	204	5	1200	.25	7000	130	0.5	100	1.0	5.9
ZGP10-180	144	216	5	1300	.25	7000	140	0.5	100	1.0	5.6
ZGP10-190	152	228	5	1400	.25	7500	150	0.5	100	1.0	5.3
ZGP10-200	160	240	5	1500	.25	8000	160	0.5	100	1.0	5.0

Standard +/- 20%, Suffix A= +/- 10%, Suffix B= +/- 5%.

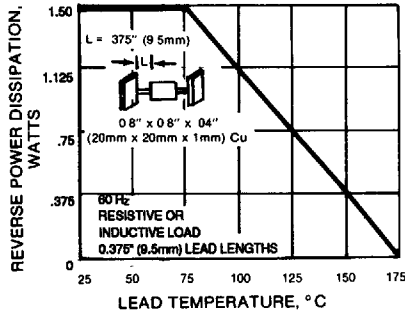
\*Temperature rating at specified regulator current is T<sub>L</sub>=30°C.

\*\*Maximum continuous power dissipation at T<sub>L</sub>=75°C lead length .375", 9.5mm is 1.5 Watts.

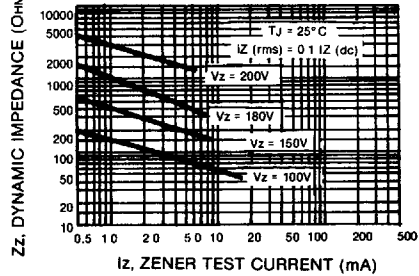
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**RATINGS AND CHARACTERISTIC CURVES ZGP10-100 THRU ZGP10-200**

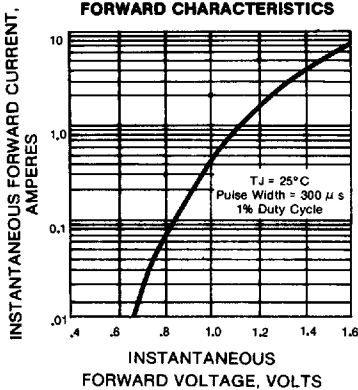
**FIG. 1 — MAXIMUM CONTINUOUS POWER DISSIPATION**



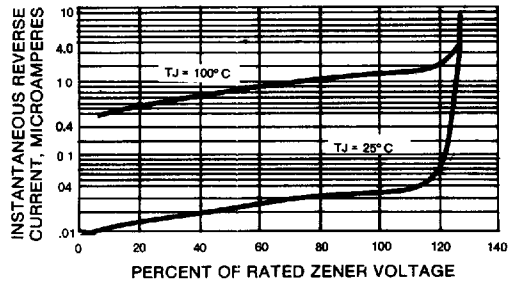
**FIG. 2 — TYPICAL ZENER IMPEDANCE**



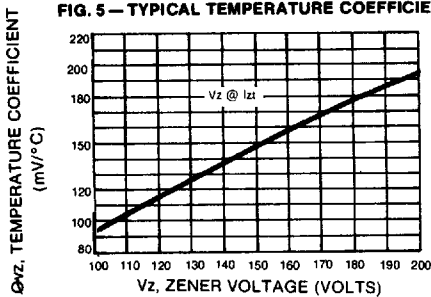
**FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 — TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 — TYPICAL TEMPERATURE COEFFICIENTS**



**FIG. 6 — SUPERRECTIFIER**

