

# 1N4678 SERIES

## AXIAL LEAD ZENER DIODES

**VOLTAGE** 1.8 to 43 Volts **POWER** 500mWatts

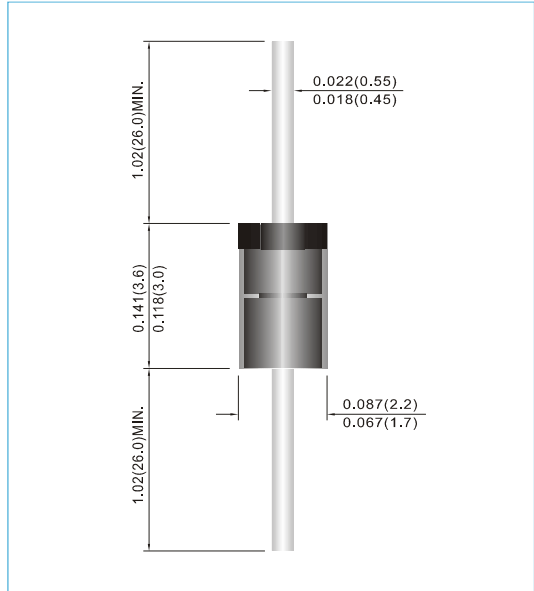
**DO-35** Unit : inch(mm)

### FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: Molded Glass DO-35
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx. Weight: 0.13 grams
- Mounting Position: Any
- Ordering information: Suffix : " -35 " to order DO-35 Package
- Packing information
  - B - 2K per Bulk box
  - T/R - 10K per 15" plastic Reel
  - T/B - 5K per horiz. tape & Ammo box



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

Rating	Symbol	Value	Units
Power Dissipation at T <sub>A</sub> = 25 °C	P <sub>TOT</sub>	500	mW
Maximum Forward Voltage at I <sub>F</sub> =100mA	V <sub>F</sub>	1	V
Maximum Thermal Resistance Junction to Ambient Air (Notes 1)	R <sub>θJA</sub>	300	°C / W
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +175	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +175	°C

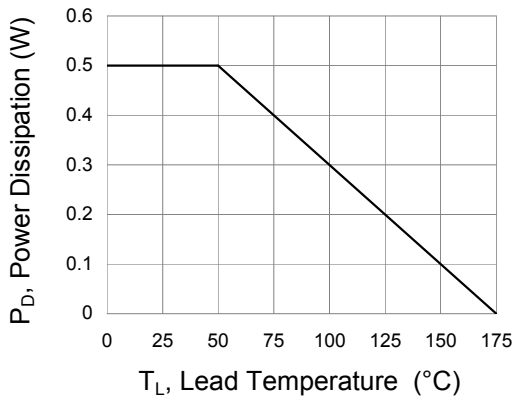
### NOTES :

1. Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

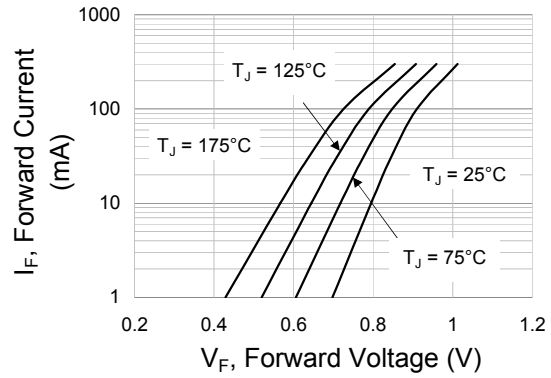
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Part Number	Nominal Zener Voltage			Max. Zener Impedance		Max. Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>KT</sub> @ I <sub>ZT</sub>		I <sub>R</sub> @ V <sub>R</sub>		
	Nom.V	Min.V	Max.V	Ω	mA	μA	V	
1N4678	1.8	1.710	1.890	-	0.05	7.50	1.0	1N4678
1N4679	2.0	1.900	2.100	-	0.05	5.00	1.0	1N4679
1N4680	2.2	2.090	2.310	-	0.05	4.00	1.0	1N4680
1N4681	2.4	2.280	2.520	-	0.05	2.00	1.0	1N4681
1N4682	2.7	2.565	2.835	-	0.05	1.00	1.0	1N4682
1N4683	3.0	2.850	3.150	-	0.05	0.80	1.0	1N4683
1N4684	3.3	3.135	3.465	-	0.05	7.50	1.5	1N4684
1N4685	3.6	3.420	3.780	-	0.05	7.50	2.0	1N4685
1N4686	3.9	3.705	4.095	-	0.05	5.00	2.0	1N4686
1N4687	4.3	4.085	4.515	-	0.05	4.00	2.0	1N4687
1N4688	4.7	4.465	4.935	-	0.05	10	3.0	1N4688
1N4689	5.1	4.845	5.355	-	0.05	10	3.0	1N4689
1N4690	5.6	5.320	5.880	-	0.05	10	4.0	1N4690
1N4691	6.2	5.890	6.510	-	0.05	10	5.0	1N4691
1N4692	6.8	6.460	7.140	-	0.05	10	5.1	1N4692
1N4693	7.5	7.125	7.875	-	0.05	10	5.7	1N4693
1N4694	8.2	7.790	8.610	-	0.05	1.0	6.2	1N4694
1N4695	8.7	8.265	9.135	-	0.05	1.0	6.6	1N4695
1N4696	9.1	8.645	9.555	-	0.05	1.0	6.9	1N4696
1N4697	10.0	9.500	10.50	-	0.05	1.0	7.6	1N4697
1N4698	11.0	10.45	11.55	-	0.05	0.05	8.4	1N4698
1N4699	12.0	11.40	12.60	-	0.05	0.05	9.1	1N4699
1N4700	13.0	12.35	13.65	-	0.05	0.05	9.8	1N4700
1N4701	14.0	13.30	14.70	-	0.05	0.05	10.6	1N4701
1N4702	15.0	14.25	15.75	-	0.05	0.05	11.4	1N4702
1N4703	16.0	15.20	16.80	-	0.05	0.05	12.1	1N4703
1N4704	17.0	16.15	17.85	-	0.05	0.05	12.9	1N4704
1N4705	18.0	17.10	18.90	-	0.05	0.05	13.6	1N4705
1N4706	19.0	18.05	19.95	-	0.05	0.05	14.4	1N4706
1N4707	20.0	19.00	21.00	-	0.05	0.01	15.2	1N4707
1N4708	22.0	20.90	23.10	-	0.05	0.01	16.7	1N4708
1N4709	24.0	22.80	25.20	-	0.05	0.01	18.2	1N4709
1N4710	25.0	23.75	26.25	-	0.05	0.01	19.0	1N4710
1N4711	27.0	25.65	28.35	-	0.05	0.01	20.4	1N4711
1N4712	28.0	26.60	29.40	-	0.05	0.01	21.2	1N4712
1N4713	30.0	28.50	31.50	-	0.05	0.01	22.8	1N4713
1N4714	33.0	31.35	34.65	-	0.05	0.01	25.0	1N4714
1N4715	36.0	34.20	37.80	-	0.05	0.01	27.3	1N4715
1N4716	39.0	37.05	40.95	-	0.05	0.01	29.6	1N4716
1N4717	43.0	40.85	45.15	-	0.05	0.01	32.6	1N4717

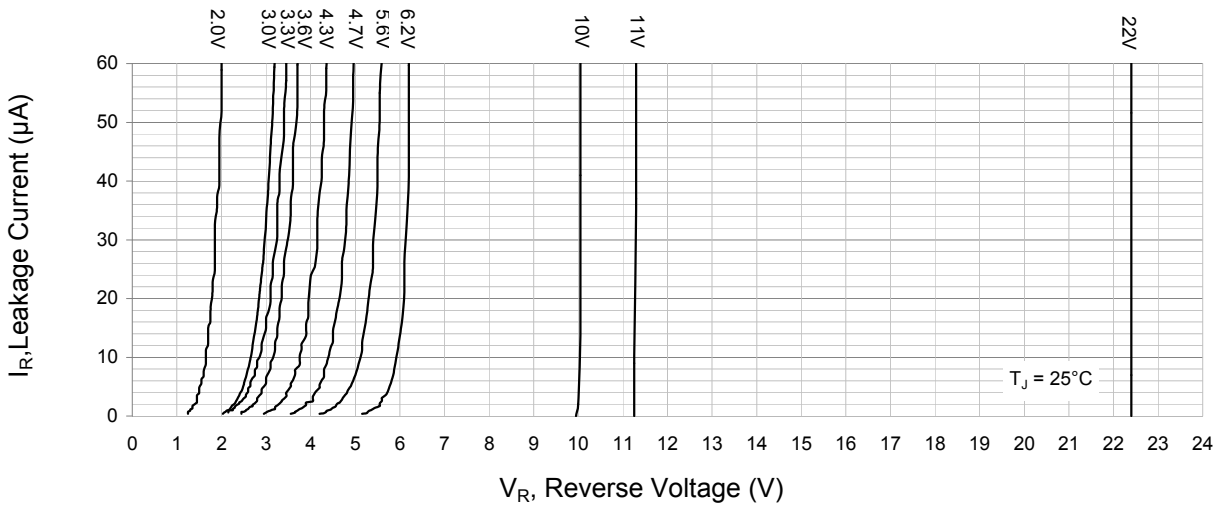
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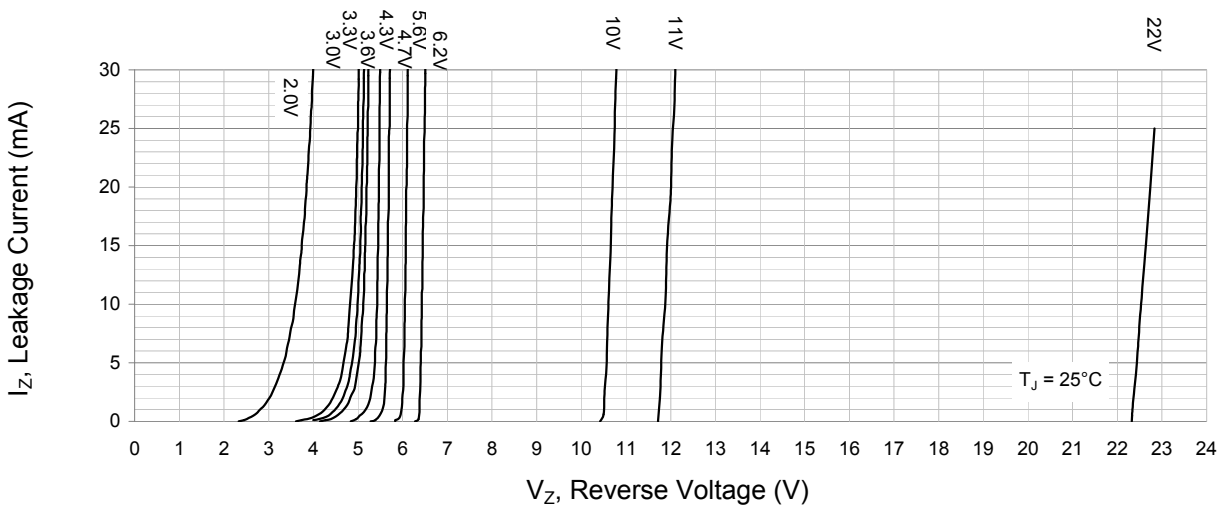
**Fig.1 Power Derating Curve**



**Fig.2 Typical Forward Characteristics**



**Fig.3 Typical Reverse Characteristics**



**Fig.4 Typical Zener Characteristics**