FAIRCHILD
SEMICONDUCTOR®

Zeners
1N4678 - 1N4702

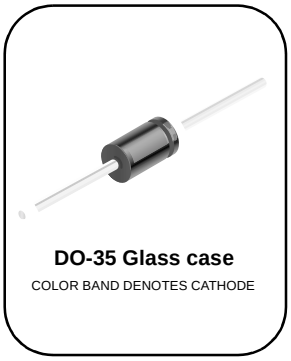
Absolute Maximum Ratings *

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
P_D	Power Dissipation @ TL ≤ 75°C, Lead Length = 3/8”	500	mW
	Derate above 75°C	4.0	mW/°C
T_J, T_{STG}	Operating and Storage Temperature Range	-65 to +200	°C

* These ratings are limiting values above which the serviceability of the diode may be impaired.

Tolerance = 5%



DO-35 Glass case
COLOR BAND DENOTES CATHODE

Electrical Characteristics

T_A=25°C unless otherwise noted

Device	V_Z (Volts) @ I_Z = 50µA (Note 1)			I_R @ V_R		I_{ZM} (mA) (Note 2)	ΔV_Z (Volts) (Note 3)
	Min.	Typ.	Max.	µA	Volts		
1N4678	1.71	1.8	1.89	7.5	1	120	0.7
1N4679	1.9	2	2.1	5	1	110	0.7
1N4680	2.09	2.2	2.31	4	1	100	0.75
1N4681	2.28	2.4	2.52	2	1	95	0.8
1N4682	2.565	2.7	2.835	1	1	90	0.85
1N4683	2.85	3	3.15	0.8	1	85	0.9
1N4684	3.135	3.3	4.465	7.5	1.5	80	0.95
1N4685	3.42	3.6	3.78	7.5	2	75	0.95
1N4686	3.705	3.9	4.095	5	2	70	0.97
1N4687	4.085	4.3	4.515	4	2	65	0.99
1N4688	4.465	4.7	4.935	10	3	60	0.99
1N4689	4.845	5.1	5.355	10	3	55	0.97
1N4690	5.32	5.6	5.88	10	4	50	0.96
1N4691	5.89	6.2	6.51	10	5	45	0.95
1N4692	6.45	6.8	7.14	10	5.1	35	0.9
1N4693	7.125	7.5	7.785	10	5.7	31.8	0.75
1N4694	7.79	8.2	8.61	1	6.2	29	0.5
1N4695	8.265	8.7	9.135	1	6.6	27.4	0.1
1N4696	8.645	9.1	9.555	1	6.9	26.2	0.08
1N4697	9.5	10	10.5	1	7.6	24.8	0.1
1N4698	10.45	11	11.55	0.05	8.4	21.6	0.11
1N4699	11.4	12	12.6	0.05	9.1	20.4	0.12
1N4700	12.35	13	13.65	0.05	9.8	19	0.13
1N4701	13.3	14	14.7	0.05	10.6	17.5	0.14
1N4702	14.25	15	15.75	0.05	11.4	16.3	0.15

V_F Forward Voltage = 1.5V Max @ I_F = 100mA

Notes:
1. Zener Voltage (V_Z)
   The zener voltage is measured with the device junction in the themal equilibrium at the lead temperature (T_L) at 30°C ± 1°C and 3/8” lead length.
2. Maximum Zener Current Ratings (I_{ZM})
   The maximum current handling capability on a worst case basis is limited by the actual zener voltage at the operation point and the power derating curve.
3. Maximum Voltage Change (ΔV_Z)
   Voltage change is equal to the difference between V_Z at 100µA and at 10µA.

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