

RD2.0ES SERIES

V_Z : 2.0 - 37.5Volts

P_D : 400 mW

FEATURES :

- * High reliability
- * Low leakage current
- * Suitable for 5mm - pitch high speed automatical insertion
- * **Pb / RoHS Free**

MECHANICAL DATA

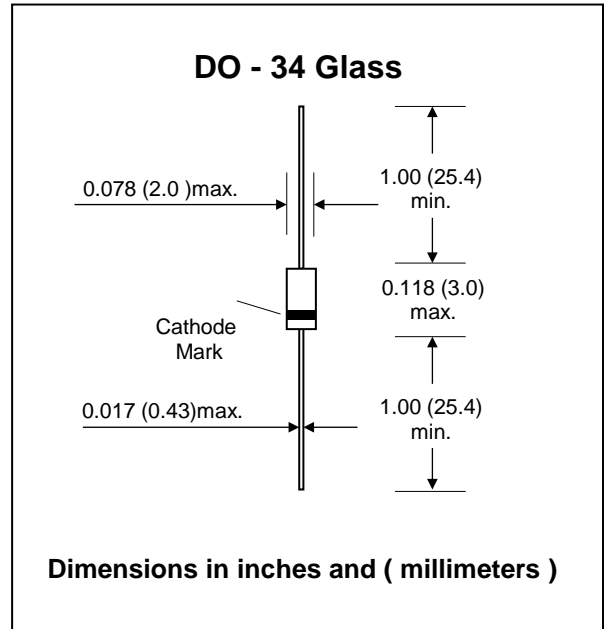
Case: DO-34 Glass Case

Weight: approx. 0.093g

ORDERING INFORMATION

RD2.0ES to RD39ES with suffix "AB1", "AB2", or "AB3" should be applied for orders for suffix "AB"

ZENER DIODES



MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Forward Rectifier Current	I _F	150	mA
Power Dissipation	P _D	400	mW
Surge Reverse Power (t = 10µs)	PRSM	100	W
Junction Temperature	T _J	175	°C
Storage Temperature Range	T _{stg}	- 65 to + 175	°C



ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Suffix	Zener Voltage ⁽¹⁾		Test Current I _{ZT} (mA)	Maximum Zener ⁽²⁾ Impedance	Maximum Reverse Current	
		V _Z (V) at I _{ZT}			Z _{ZT} @ I _{ZT}	I _R	at V _R
		min.	max.	(Ω)	(μA)	(V)	
RD2.0ES	AB	1.88	2.20	5	100	120	0.5
	AB1	1.88	2.10				
	AB2	2.02	2.20				
RD2.2ES	AB	2.12	2.41	5	100	120	0.7
	AB1	2.12	2.30				
	AB2	2.22	2.41				
RD2.4ES	AB	2.33	2.63	5	100	120	1.0
	AB1	2.33	2.52				
	AB2	2.43	2.63				
RD2.7ES	AB	2.54	2.91	5	110	100	1.0
	AB1	2.54	2.75				
	AB2	2.69	2.91				
RD3.0ES	AB	2.85	3.22	5	120	50	1.0
	AB1	2.85	3.07				
	AB2	3.01	3.22				
RD3.3ES	AB	3.16	3.53	5	120	20	1.0
	AB1	3.16	3.38				
	AB2	3.32	3.53				
RD3.6ES	AB	3.47	3.83	5	120	10	1.0
	AB1	3.47	3.68				
	AB2	3.62	3.83				
RD3.9ES	AB	3.77	4.14	5	120	5	1.0
	AB1	3.77	3.98				
	AB2	3.92	4.14				
RD4.3ES	AB	4.05	4.53	5	120	5	1.0
	AB1	4.05	4.26				
	AB2	4.20	4.40				
	AB3	4.34	4.53				
RD4.7ES	AB	4.47	4.91	5	100	5	1.0
	AB1	4.47	4.65				
	AB2	4.59	4.77				
	AB3	4.71	4.91				
RD5.1ES	AB	4.85	5.35	5	70	5	1.5
	AB1	4.85	5.03				
	AB2	4.97	5.18				
	AB3	5.12	5.35				
RD5.6ES	AB	5.29	5.88	5	40	5	2.5
	AB1	5.29	5.52				
	AB2	5.46	5.70				
	AB3	5.64	5.88				
RD6.2ES	AB	5.81	6.40	5	30	5	3.0
	AB1	5.81	6.06				
	AB2	5.99	6.24				
	AB3	6.16	6.40				
RD6.8ES	AB	6.32	6.97	5	25	2	3.5
	AB1	6.32	6.59				
	AB2	6.52	6.79				
	AB3	6.70	6.97				



ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Suffix	Zener Voltage ⁽¹⁾		Test Current I _{ZT}	Maximum Zener ⁽²⁾ Impedance Z _{ZT} @ I _{ZT}	Maximum Reverse Current	
		V _Z (V) at I _{ZT}				I _R	at V _R
		min.	max.	(mA)	(Ω)	(μA)	(V)
RD7.5ES	AB	6.88	7.64	5	25	0.5	4.0
	AB1	6.88	7.19				
	AB2	7.11	7.41				
	AB3	7.33	7.64				
RD8.2ES	AB	7.56	8.41	5	20	0.5	5.0
	AB1	7.56	7.90				
	AB2	7.82	8.15				
	AB3	8.07	8.41				
RD9.1ES	AB	8.33	9.29	5	20	0.5	6.0
	AB1	8.33	8.70				
	AB2	8.61	8.99				
	AB3	8.89	9.29				
RD10ES	AB	9.19	10.30	5	20	0.2	7.0
	AB1	9.19	9.59				
	AB2	9.48	9.90				
	AB3	9.82	10.30				
RD11ES	AB	10.18	11.26	5	20	0.2	8.0
	AB1	10.18	10.63				
	AB2	10.50	10.95				
	AB3	10.82	11.26				
RD12ES	AB	11.13	12.30	5	25	0.2	9.0
	AB1	11.13	11.63				
	AB2	11.50	11.92				
	AB3	11.80	12.30				
RD13ES	AB	12.18	13.62	5	25	0.2	10
	AB1	12.18	12.71				
	AB2	12.59	13.16				
	AB3	13.03	13.62				
RD15ES	AB	13.48	15.02	5	25	0.2	11
	AB1	13.48	14.09				
	AB2	13.95	14.56				
	AB3	14.42	15.02				
RD16ES	AB	14.87	16.50	5	25	0.2	12
	AB1	14.87	15.50				
	AB2	15.33	15.96				
	AB3	15.79	16.50				
RD18ES	AB	16.34	18.30	5	30	0.2	13
	AB1	16.34	17.06				
	AB2	16.90	17.67				
	AB3	17.51	18.30				
RD20ES	AB	18.14	20.45	5	30	0.2	15
	AB1	18.14	18.96				
	AB2	18.80	19.68				
	AB3	19.52	20.45				



ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Suffix	Zener Voltage ⁽¹⁾		Test Current I _{ZT}	Maximum Zener Impedance Z _{ZT} @ I _{ZT}	Maximum Reverse Current	
		V _Z (V) at I _{ZT}				I _R	at V _R
		min.	max.	(mA)	(Ω)	(μA)	(V)
RD22ES	AB	20.23	22.61	5	30	0.2	17
	AB1	20.23	21.08				
	AB2	20.76	21.65				
	AB3	21.22	22.09				
	AB4	21.68	22.61				
RD24ES	AB	22.26	24.81	5	30	0.2	19
	AB1	22.26	23.12				
	AB2	22.75	23.73				
	AB3	23.29	24.27				
	AB4	23.81	24.81				
RD27ES	AB	24.26	27.64	5	45	0.2	21
	AB1	24.26	25.52				
	AB2	24.97	26.26				
	AB3	25.63	26.95				
	AB4	26.29	27.64				
RD30ES	AB	26.99	30.51	5	55	0.2	23
	AB1	26.99	28.39				
	AB2	27.70	29.13				
	AB3	28.36	29.82				
	AB4	29.02	30.51				
RD33ES	AB	29.68	33.11	5	65	0.2	25
	AB1	29.68	31.22				
	AB2	30.32	31.88				
	AB3	30.90	32.50				
	AB4	31.49	33.11				
RD36ES	AB	32.14	35.77	5	75	0.2	27
	AB1	32.14	33.79				
	AB2	32.79	34.49				
	AB3	33.40	35.13				
	AB4	34.01	35.77				
RD39ES	AB	34.68	38.52	5	85	0.2	30
	AB1	34.68	36.47				
	AB2	35.36	37.19				
	AB3	36.00	37.85				
	AB4	36.63	38.52				

Notes :

- (1) Tested with pulse (40 ms)
- (2) Z_Z is measured at I_Z by given a very small A.C. current signal.
- (3) Suffix AB is Suffix AB1, AB2, AB3, or AB4

RATING AND CHARACTERISTIC CURVES (RD2.0ES SERIES)

FIG.1 - POWER DISSIPATION vs. AMBIENT TEMPERATURE

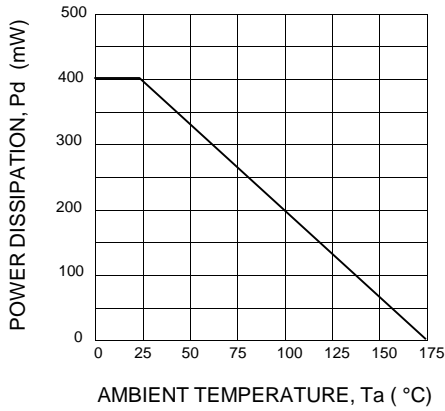


FIG.2 - TEMPERATURE COEFFICIENT vs. ZENER VOLTAGE

