

ZPD2.7 - ZPD75

V_Z : 2.7 to 75V
 PD : 500mW

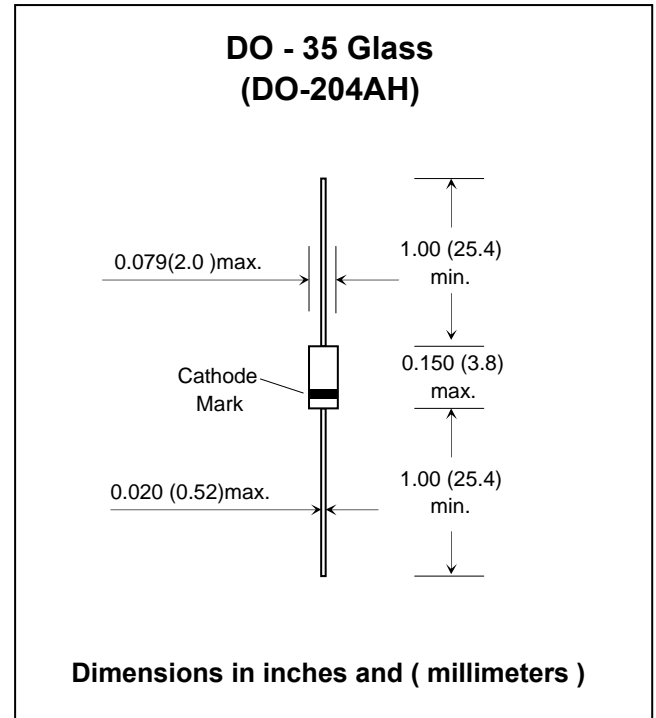
FEATURES :

- * Silicon planar zener diodes.
- * Standard zener voltage tolerance is $\pm 5\%$.
- * Other tolerances are available upon request.
- * These diodes are also available in MiniMELF case with the type designation ZMM2.7 ... ZMM75.
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * **Case:** DO-35 Glass Case
- * **Weight:** approx. 0.13g

ZENER DIODES



Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation	P_D	500 ⁽¹⁾	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 ⁽²⁾	°C/W
Junction temperature	T_J	175	°C
Storage temperature range	T_S	-65 to + 175	°C

Notes:

- (1) Valid provided that leads at a distance of 8mm from case are kept at ambient temperature.
- (2) Valid provided that leads at a distance of 4mm from case are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Zener Voltage		Dynamic Resistance		Reverse Voltage at $I_R = 100 \text{ nA}$ V_R (V)	Temp. coefficient of Zener Voltage at I_{ZT} $\alpha_{VZ} (10^{-4} / ^\circ\text{C})$		Admissible Zener Current I_Z (mA)
	$V_Z @ I_{ZT}$		at $I_Z = 5 \text{ mA}$	at $I_Z = 1 \text{ mA}$		min.	max.	
	Nom ¹⁾ (V)	I_{ZT} (mA)	$f = 1 \text{ kHz}$ $r_{zj} (\Omega)$	$f = 1 \text{ kHz}$ $r_{zj} (\Omega)$				
ZPD2.7	2.7	5	75 (< 83)	< 500	-	-9	-4	160
ZPD3.0	3.0	5	80 (< 95)	< 500	-	-9	-3	140
ZPD3.3	3.3	5	80 (< 95)	< 500	-	-8	-3	130
ZPD3.6	3.6	5	80 (< 95)	< 500	-	-8	-3	120
ZPD3.9	3.9	5	80 (< 95)	< 500	-	-7	-3	110
ZPD4.3	4.3	5	80 (< 95)	< 500	-	-6	-1	100
ZPD4.7	4.7	5	70 (< 78)	< 500	-	-5	+2	90
ZPD5.1	5.1	5	30 (< 60)	< 480	> 0.8	-3	+4	80
ZPD5.6	5.6	5	10 (< 40)	< 400	> 1	-2	+6	70
ZPD6.2	6.2	5	4.8 (< 10)	< 200	> 2	-1	+7	64
ZPD6.8	6.8	5	4.5 (< 8)	< 150	> 3	+2	+7	58
ZPD7.5	7.5	5	4 (< 7)	< 50	> 5	+3	+7	53
ZPD8.2	8.2	5	4.5 (< 7)	< 50	> 6	+4	+7	47
ZPD9.1	9.1	5	4.8 (< 10)	< 50	> 7	+5	+8	43
ZPD10	10	5	5.2 (< 15)	< 70	> 7.5	+5	+8	40
ZPD11	11	5	6 (< 20)	< 70	> 8.5	+5	+9	36
ZPD12	12	5	7 (< 20)	< 90	> 9	+6	+9	32
ZPD13	13	5	9 (< 25)	< 110	> 10	+7	+9	29
ZPD15	15	5	11 (< 30)	< 110	> 11	+7	+9	27
ZPD16	16	5	13 (< 40)	< 170	> 12	+8	+9.5	24
ZPD18	18	5	18 (< 50)	< 170	> 14	+8	+9.5	21
ZPD20	20	5	20 (< 50)	< 220	> 15	+8	+10	20
ZPD22	22	5	25 (< 55)	< 220	> 17	+8	+10	18
ZPD24	24	5	28 (< 80)	< 220	> 18	+8	+10	16
ZPD27	27	5	30 (< 80)	< 250	> 20	+8	+10	14
ZPD30	30	5	35 (< 80)	< 250	> 22.5	+8	+10	13
ZPD33	33	5	40 (< 80)	< 250	> 25	+8	+10	12
ZPD36	36	5	40 (< 90)	< 250	> 27	+8	+10	11
ZPD39	39	5	50 (< 90)	< 300	> 29	+10	+12	10
ZPD43	43	5	60 (< 100)	< 700	> 32	+10	+12	9.2
ZPD47	47	5	70 (< 100)	< 750	> 35	+10	+12	8.5
ZPD51	51	5	70 (< 100)	< 750	> 38	+10	+12	7.8
ZPD56	56	2.5	< 135 ⁽³⁾	< 1000 ⁽⁴⁾	-	+10 (typ.)		-
ZPD62	62	2.5	< 150 ⁽³⁾	< 1000 ⁽⁴⁾	-	+ 10 (typ.)		-
ZPD68	68	2.5	< 200 ⁽³⁾	< 1000 ⁽⁴⁾	-	+ 10 (typ.)		-
ZPD75	75	2.5	< 250 ⁽³⁾	< 1500 ⁽⁴⁾	-	+ 10 (typ.)		-

Notes :

- (1) Tested with pulses $t_p = 5 \text{ ms}$
- (2) Valid provided that leads at a distance of 4 mm from case are kept at ambient temperature.
- (3) at $I_Z = 2.5 \text{ mA}$
- (4) at $I_Z = 0.5 \text{ mA}$
- (5) The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5.0\%$.