

500 mW DO-35 Hermetically Sealed Glass Zener Voltage Regulators

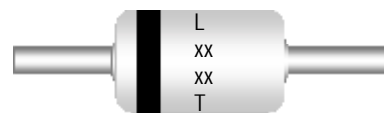


Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Value	Units
Power Dissipation	500	mW
Storage Temperature Range	-65 to +175	$^\circ\text{C}$
Operating Junction Temperature	+175	$^\circ\text{C}$

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

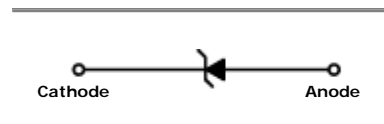
DEVICE MARKING DIAGRAM



L : Logo
 Device Code : CM1NxxxxT
 Tolerance (T) : A = 10%
 B = 5%
 C = 2%
 D = 1%

Specification Features:

- § Zener Voltage Range 2.4 to 75 Volts
- § DO-35 Package (JEDEC)
- § Through-Hole Device Type Mounting
- § Hermetically Sealed Glass
- § Compression Bonded Construction
- § All external surfaces are corrosion resistant and leads are readily solderable
- § RoHS Compliant
- § Solder Hot Dip Tin (Sn) Lead Finish
- § Cathode Indicated By Polarity Band



ELECTRICAL SYMBOL

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Device	Zener Voltage			Zener Impedance				Leakage Current	
	V_Z (Volts)			Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}			I_R @ V_R	
	Min	Nom	Max	(mA)	(W)	(W)	(mA)	(mA)	(Volts)
CM1N5985B	2.280	2.4	2.520	5	100	1800	0.25	100	1
CM1N5986B	2.565	2.7	2.835	5	100	1900	0.25	75	1
CM1N5987B	2.850	3	3.150	5	95	2000	0.25	50	1
CM1N5988B	3.135	3.3	3.465	5	95	2200	0.25	25	1
CM1N5989B	3.420	3.6	3.780	5	90	2300	0.25	15	1
CM1N5990B	3.705	3.9	4.095	5	90	2400	0.25	10	1
CM1N5991B	4.085	4.3	4.515	5	88	2500	0.25	5	1
CM1N5992B	4.465	4.7	4.935	5	70	2200	0.25	3	1.5
CM1N5993B	4.845	5.1	5.355	5	50	2050	0.25	2	2
CM1N5994B	5.320	5.6	5.880	5	25	1800	0.25	2	3
CM1N5995B	5.890	6.2	6.510	5	10	1300	0.25	1	4
CM1N5996B	6.460	6.8	7.140	5	8	750	0.25	1	5.2
CM1N5997B	7.125	7.5	7.875	5	7	600	0.25	0.5	6
CM1N5998B	7.790	8.2	8.610	5	7	600	0.25	0.5	6.5
CM1N5999B	8.645	9.1	9.555	5	10	600	0.25	0.1	7
CM1N6000B	9.50	10	10.50	5	15	600	0.25	0.1	8
CM1N6001B	10.45	11	11.55	5	18	600	0.25	0.1	8.4

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Device	Zener Voltage				Zener Impedance			Leakage Current	
	V_Z (Volts)			@ I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R	
	Min	Nom	Max	(mA)	(W)	(W)	(mA)	(mA)	(Volts)
CM1N6002B	11.40	12	12.60	5	22	600	0.25	0.1	9.1
CM1N6003B	12.35	13	13.65	5	25	600	0.25	0.1	9.9
CM1N6004B	14.25	15	15.75	5	32	600	0.25	0.1	11
CM1N6005B	15.20	16	16.80	5	36	600	0.25	0.1	12
CM1N6006B	17.10	18	18.90	5	42	600	0.25	0.1	14
CM1N6007B	19.00	20	21.00	5	48	600	0.25	0.1	15
CM1N6008B	20.90	22	23.10	5	55	600	0.25	0.1	17
CM1N6009B	22.80	24	25.20	5	62	600	0.25	0.1	18
CM1N6010B	25.65	27	28.35	5	70	600	0.25	0.1	21
CM1N6011B	28.50	30	31.50	5	78	600	0.25	0.1	23
CM1N6012B	31.35	33	34.65	5	88	700	0.25	0.1	25
CM1N6013B	34.20	36	37.80	5	95	700	0.25	0.1	27
CM1N6014B	37.05	39	40.95	2	130	800	0.25	0.1	30
CM1N6015B	40.85	43	45.15	2	150	900	0.25	0.1	33
CM1N6016B	44.65	47	49.35	2	170	1000	0.25	0.1	36
CM1N6017B	48.45	51	53.55	2	180	1300	0.25	0.1	39
CM1N6018B	53.20	56	58.80	2	200	1400	0.25	0.1	43
CM1N6019B	58.90	62	65.10	2	225	1400	0.25	0.1	47
CM1N6020B	64.60	68	71.40	2	240	1600	0.25	0.1	52
CM1N6021B	71.25	75	78.75	2	265	1700	0.25	0.1	56

Notes:

1. TOLERANCE AND VOLTAGE DESIGNATION

The type numbers listed have zener voltage as shown and have a standard tolerance on the nominal zener voltage of $\pm 5\%$. Suffix A = $\pm 10\%$, C = $\pm 2\%$ and D = $\pm 1\%$.

2. SPECIALS AVAILABLE INCLUDE

Nominal zener voltages between the voltages shown and tighter voltage, for detailed information on price, availability and delivery, contact you nearest Tak Cheong representative.

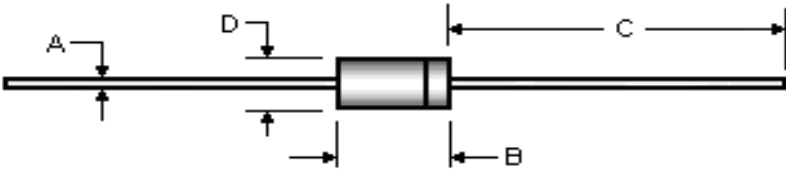
3. ZENER VOLTAGE (V_Z) MEASUREMENT

The zener voltage (V_Z) is tested under pulse conditions such that T_J is no more than 2°C above T_A .

4. ZENER IMPEDANCE (Z_Z) DERIVATION

Zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an RMS value equal to 10% of the dc zener current (I_{ZT}) is superimposed to I_{ZT} .

Package Outline

Package	Case Outline				
DO-35					
	DO-35				
	DIM	Millimeters		Inches	
		Min	Max	Min	Max
	A	0.46	0.55	0.018	0.022
	B	---	5.08	---	0.200
C	25.40	38.10	1.000	1.500	
D	1.53	2.28	0.060	0.090	

Notes:

1. All dimensions are within JEDEC standard.
2. DO35 polarity denoted by cathode band.