SEMICONDUCTOR

DATA SHEET

MZ2V0~MZ56V

500 mW DO-34 Hermetically Sealed Glass Zener Voltage Regulators

AXIAL LEAD
DO34

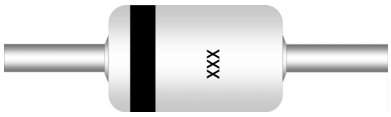
Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Parameter	Value	Units
Power Dissipation	500	mW
Storage Temperature Range	-65 to +200	°C
Operating Junction Temperature	+200	°C
Lead Temperature (1/16" from case for 10 seconds)	+230	°C

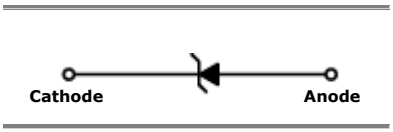
These ratings are limiting values above which the serviceability of the diode may be impaired.

DEVICE MARKING DIAGRAM



Specification Features:

- Zener Voltage Range 2.0 to 56 Volts
- DO-34 Package (JEDEC DO-204)
- Through-Hole Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All external surfaces are corrosion resistant and leads are readily solderable
- Cathode indicated by polarity band



ELECTRICAL SYMBOL

Electrical Characteristics

T_A = 25°C unless otherwise noted

Device Type	V_Z @ I_{ZT} (Volts) Nominal	I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω) Max	I_R @ V_R (μA) Max	V_R (Volts)
MZ2V0	2.0	5	100	120	0.5
MZ2V2	2.2	5	100	120	0.7
MZ2V4	2.4	5	100	120	1
MZ2V7	2.7	5	110	100	1
MZ3V0	3.0	5	120	50	1
MZ3V3	3.3	5	120	20	1
MZ3V6	3.6	5	100	10	1
MZ3V9	3.9	5	100	5	1
MZ4V3	4.3	5	100	5	1
MZ4V7	4.7	5	80	5	1
MZ5V1	5.1	5	80	5	1.5
MZ5V6	5.6	5	60	5	2.5
MZ6V2	6.2	5	60	5	3
MZ6V8	6.8	5	20	2	3.5
MZ7V5	7.5	5	20	0.5	4
MZ8V2	8.2	5	20	0.5	5
MZ9V1	9.1	5	25	0.5	6
MZ10V	10	5	30	0.2	7
MZ11V	11	5	30	0.2	8
MZ12V	12	5	30	0.2	9
MZ13V	13	5	35	0.2	10
MZ15V	15	5	40	0.2	11

Electrical Characteristics

T_A = 25°C unless otherwise noted

Device Type	V_Z @ I_{ZT} (Volts) Nominal	I_{ZT} (mA)	Z_{ZT} @ I_{ZT} (Ω) Max	I_R @ V_R (μA) Max	V_R (Volts)
MZ16V	16	5	40	0.2	12
MZ18V	18	5	45	0.2	13
MZ20V	20	5	45	0.2	15
MZ22V	22	5	30	0.2	17
MZ24V	24	5	35	0.2	19
MZ27V	27	5	45	0.2	21
MZ30V	30	5	55	0.2	23
MZ33V	33	5	65	0.2	25
MZ36V	36	5	75	0.2	27
MZ39V	39	5	85	0.2	30
MZ43V	43	5	90	0.2	33
MZ47V	47	5	90	0.2	36
MZ51V	51	5	110	0.2	39
MZ56V	56	5	110	0.2	43

V_F Forward Voltage = 1.2 V Maximum @ I_F = 200 mA for all types

Notes:

1. The type numbers listed have zener voltage min/max limits as shown and have a standard tolerance on the nominal zener voltage of 5%.
2. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest YFElectronics representative.
3. The 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} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

Electrical Symbol Definition

Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Reverse Current
Z_{ZT}	Maximum Zener Impedance @ I_{ZT}
I_{ZK}	Reverse Current
Z_{ZK}	Maximum Zener Impedance @ I_{ZK}
I_R	Reverse Leakage Current @ V_R
V_R	Breakdown Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F

Typical Characteristics

