MTZJ SERIES

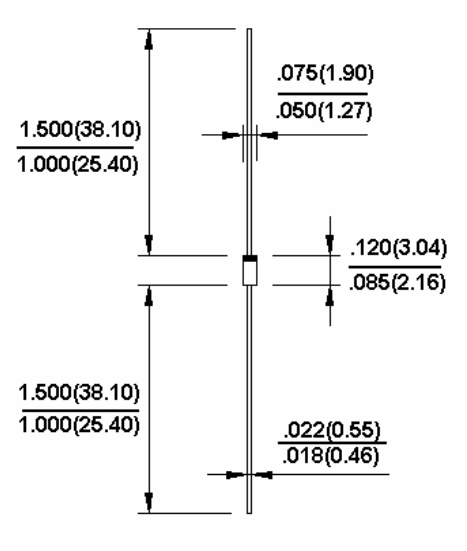
500mW Hermetically Sealed Glass Zener Diodes

DO-34



Features

- ✧ Zener voltage range 2.0 to 39 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
- ✧ RoHS compliant
- ✧ Solder hot dip Tin (Sn) lead finish
- ✧ Cathode indicated by polarity band



Dimensions in inches and (millimeters)

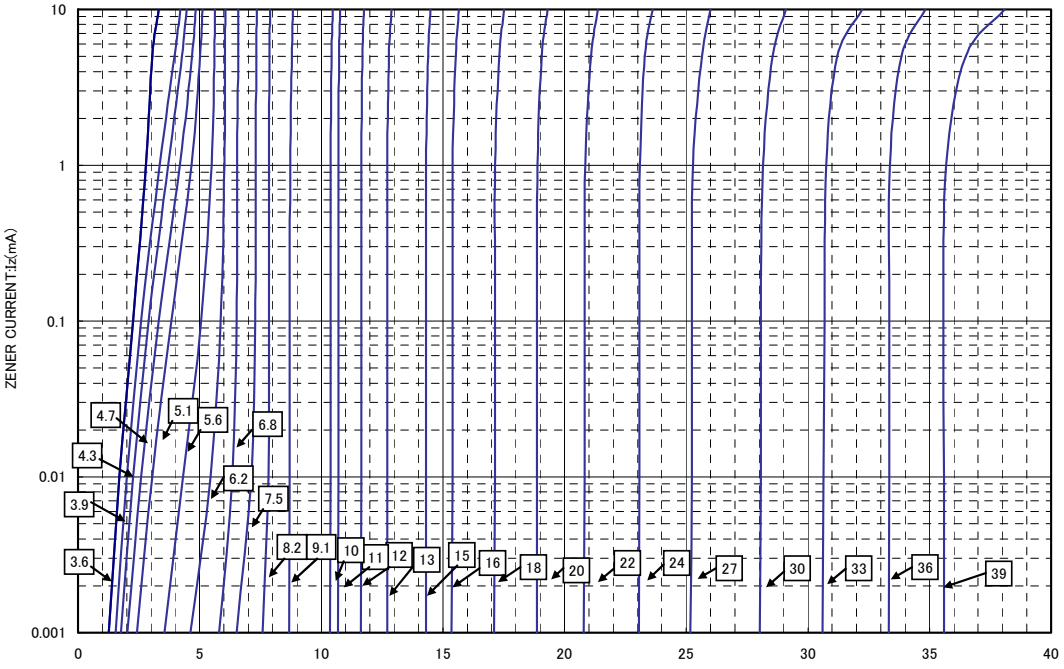
Maximum Ratings and Electrical Characteristics

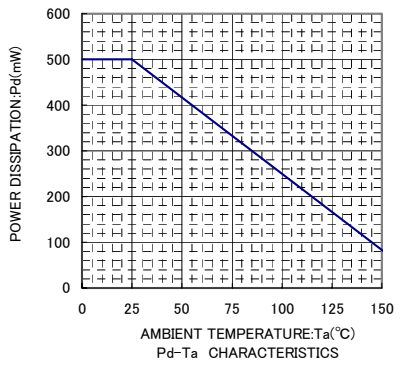
Rating at 25°C ambient temperature unless otherwise specified.

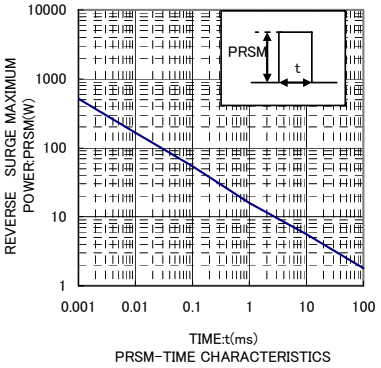
Maximum Ratings

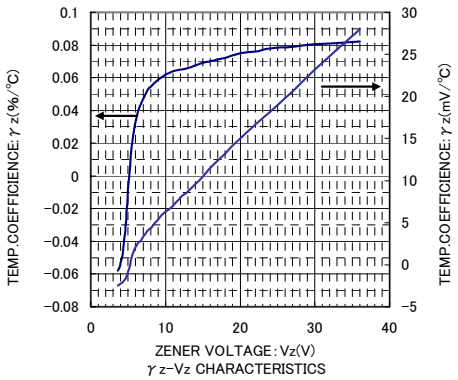
Type Number	Symbol	Value	Units
Power Dissipation	Pd	500	mW
Lead temperature (1/16" from case for 10 seconds)	Lt	230	°C
Operating Junction Temperature	T_J	+ 175	°C
Storage Temperature Range	T_{STG}	-65 to + 200	°C

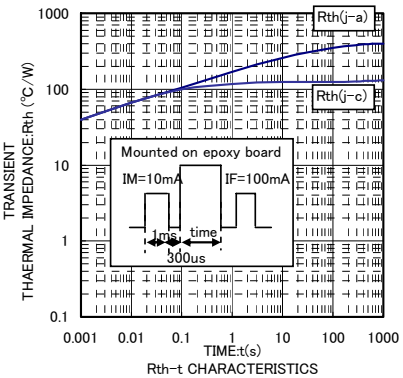
RATINGS AND CHARACTERISTIC CURVES (MTZJ SERIES)



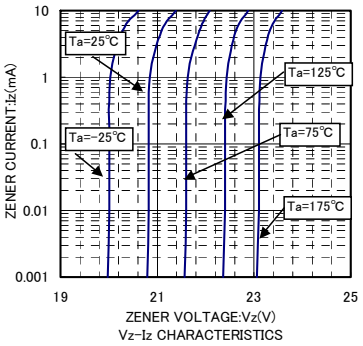




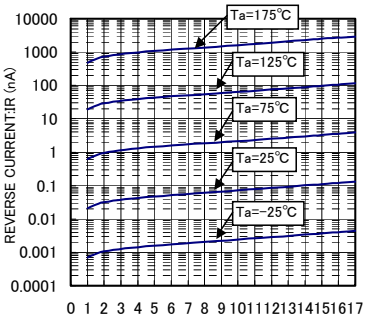




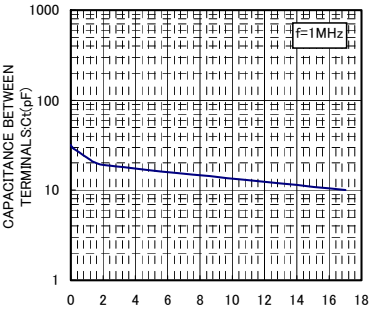
RATINGS AND CHARACTERISTIC CURVES (MTZJ SERIERS)



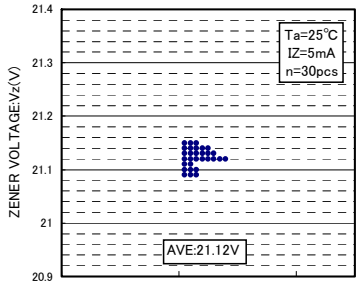
Vz–Iz CHARACTERISTICS



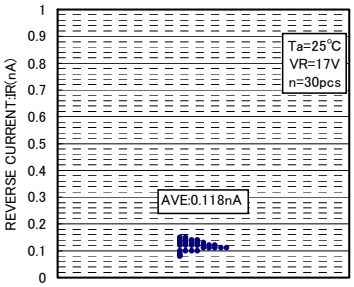
VR–IR CHARACTERISTICS



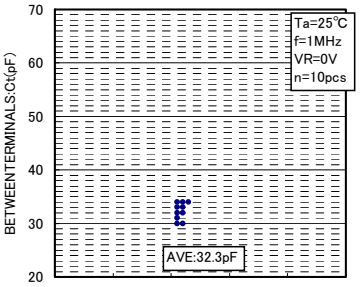
VR–Ct CHARACTERISTICS



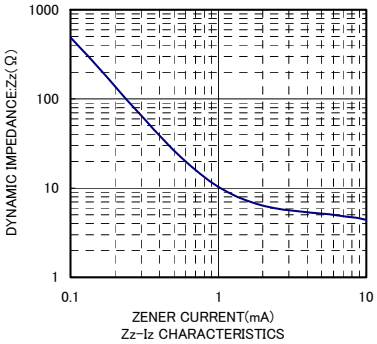
Vz DISRESION MAP



IR DISRESION MAP



Ct DISRESION MAP



Zz–Iz CHARACTERISTICS

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Type Number	T Tolerance		V_Z @ I_{ZT} Nom (V)	Min (V)	Max (V)	I_{ZT} mA	Z_{ZT} @ I_{ZT} Ohms Max.	Z_{ZK} @ I_{ZK} Ohms Max.	I_{ZK} mA	I_R uA Max.	VR V
MTZJ2V0	A	5.5%	1.990	1.88	2.10	5	100	1000	0.5	120	0.5
	B	4.3%	2.110	2.02	2.20						
MTZJ2V2	A	4.0%	2.210	2.12	2.30	5	100	1000	0.5	100	0.7
	B	4.1%	2.315	2.22	2.41						
MTZJ2V4	A	3.9%	2.425	2.33	2.52	5	100	1000	0.5	120	1.0
	B	4.0%	2.530	2.43	2.63						
MTZJ2V7	A	4.0%	2.645	2.54	2.75	5	110	1000	0.5	100	1.0
	B	3.9%	2.800	2.69	2.91						
MTZJ3V0	A	3.7%	2.960	2.85	3.07	5	120	1000	0.5	50	1.0
	B	3.4%	3.115	3.01	3.22						
MTZJ3V3	A	3.4%	3.270	3.16	3.38	5	120	1000	0.5	20	1.0
	B	3.1%	3.425	3.32	3.53						
MTZJ3V6	A	3.6%	3.575	3.455	3.695	5	100	1000	1.0	10	1.0
	B	3.3%	3.723	3.60	3.845						
MTZJ3V9	A	3.5%	3.875	3.74	4.01	5	100	1000	1.0	5	1.0
	B	3.3%	4.025	3.89	4.16						
MTZJ4V3	A	3.0%	4.165	4.04	4.29	5	100	1000	1.0	5.0	1.0
	B	3.0%	4.300	4.17	4.43						
	C	3.0%	4.435	4.30	4.57						
MTZJ4V7	A	2.6%	4.56	4.44	4.68	5	80	900	1.0	5.0	1.0
	B	2.8%	4.68	4.55	4.80						
	C	2.7%	4.81	4.68	4.93						
MTZJ5V1	A	2.6%	4.94	4.81	5.07	5	80	800	1.0	5.0	1.5
	B	2.6%	5.07	4.94	5.20						
	C	2.7%	5.23	5.09	5.37						
MTZJ5V6	A	2.4%	5.41	5.28	5.55	5	60	500	1.0	5.0	2.5
	B	2.5%	5.59	5.45	5.73						
	C	2.6%	5.76	5.61	5.91						
MTZJ6V2	A	2.7%	5.94	5.78	6.09	5	60	300	1.0	5.0	3.0
	B	2.6%	6.12	5.96	6.27						
	C	2.5%	6.28	6.12	6.44						
MTZJ6V8	A	2.6%	6.46	6.29	6.63	5	20	150	0.5	2.0	3.5
	B	2.6%	6.66	6.49	6.83						
	C	2.6%	6.84	6.66	7.01						
MTZJ7V5	A	2.7%	7.04	6.85	7.22	5	20	120	0.5	0.5	4.0
	B	2.6%	7.26	7.07	7.45						
	C	2.5%	7.48	7.29	7.67						
MTZJ8V2	A	2.6%	7.73	7.53	7.92	5	20	120	0.5	0.5	5.0
	B	2.6%	7.99	7.78	8.19						
	C	2.5%	8.24	8.03	8.45						
MTZJ9V1	A	2.6%	8.51	8.29	8.73	5	25	120	0.5	0.5	6.0
	B	2.5%	8.79	8.57	9.01						
	C	2.6%	9.07	8.83	9.30						
MTZJ10	A	2.6%	9.36	9.12	9.59	5	30	120	0.5	0.2	7.0
	B	2.6%	9.66	9.41	9.90						
	C	2.5%	9.95	9.70	10.2						
	D	2.5%	10.19	9.97	1.044						
MTZJ11	A	2.6%	10.45	10.18	1.071	5	30	120	0.5	0.2	8.0
	B	2.6%	10.78	10.500	11.05						
	C	2.5%	11.10	10.82	11.38						
MTZJ12	A	2.5%	11.42	11.13	11.71	5	30	110	0.5	0.2	9.0
	B	2.6%	11.74	11.44	12.03						
	C	2.6%	12.05	11.74	12.35						

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Type Number	T Tolerance		V_Z @ I_{ZT} Nom (V)	Min (V)	Max (V)	I_{ZT} mA	Z_{ZT} @ I_{ZT} Ohms Max.	Z_{ZK} @ I_{ZK} Ohms Max.	I_{ZK} mA	I_R uA Max.	VR V
MTZJ13	A	2.6%	12.43	12.11	12.75	5	35	110	0.5	0.2	10
	B	2.6%	12.88	12.55	13.21						
	C	2.6%	13.33	12.99	13.66						
MTZJ15	A	2.5%	13.79	13.44	14.13	5	40	110	0.5	0.2	11
	B	2.6%	14.26	13.89	14.62						
	C	2.5%	14.72	14.35	15.09						
MTZJ16	A	2.6%	15.19	14.80	15.57	5	40	150	0.5	0.2	12
	B	2.6%	15.65	15.25	16.04						
	C	2.5%	16.10	15.69	16.51						
MTZJ18	A	2.5%	16.64	16.22	17.06	5	45	150	0.5	0.2	13
	B	2.5%	17.26	16.82	17.70						
	C	2.6%	17.88	17.42	18.33						
MTZJ20	A	2.5%	18.49	18.02	18.96	5	55	200	0.5	0.5	15
	B	2.5%	19.11	18.63	19.59						
	C	2.5%	19.73	19.23	20.22						
	D	2.5%	20.22	19.72	20.72						
MTZJ22	A	2.2%	20.68	20.15	21.2	5	30	200	0.5	0.2	17
	B	2.5%	21.18	20.64	21.71						
	C	2.5%	21.63	21.08	22.17						
	D	2.5%	22.08	21.52	22.63						
MTZJ24	A	2.5%	22.62	22.05	23.18	5	35	200	0.5	0.2	19
	B	2.5%	23.19	22.61	23.77						
	C	2.5%	23.72	23.12	24.31						
	D	2.5%	24.24	23.63	24.85						
MTZJ27	A	2.5%	24.89	24.26	25.52	5	45	250	0.5	0.2	21
	B	2.5%	25.62	24.97	26.26						
	C	2.5%	26.29	25.63	26.95						
	D	2.5%	26.97	26.29	27.64						
MTZJ30	A	2.5%	27.69	26.99	28.39	5	55	250	0.5	0.2	23
	B	2.5%	28.42	27.70	29.13						
	C	2.5%	29.09	28.36	29.82						
	D	2.5%	29.77	29.02	30.51						
MTZJ33	A	2.5%	30.45	29.68	31.22	5	65	250	0.5	0.2	25
	B	2.5%	31.10	30.32	31.88						
	C	2.5%	31.70	30.90	32.50						
	D	2.5%	32.30	31.49	33.11						
MTZJ36	A	2.5%	32.97	32.14	33.79	5	75	250	0.5	0.2	27
	B	2.5%	33.64	32.79	34.49						
	C	2.5%	34.27	33.40	35.13						
	D	2.5%	34.89	34.01	35.77						
MTZJ39	A	2.5%	35.58	34.68	36.47	5	85	250	0.5	0.2	30
	B	2.5%	36.28	35.36	37.19						
	C	2.5%	36.93	36.00	37.85						
	D	2.5%	37.58	36.63	38.52						

Notes:
1. The zener voltage subdivision (V_Z) is measured 40mS after diode is powered up.
2. The operating resistance (Z_{ZT} and Z_{ZK}) is measured by superimposing a minute altermation current in the regulated current (I_Z).
3. when ordering, please specify tolerance A,B,C or D.