

ZENER DIODE

REVERSE VOLTAGE - 3.3 to 100 Volts

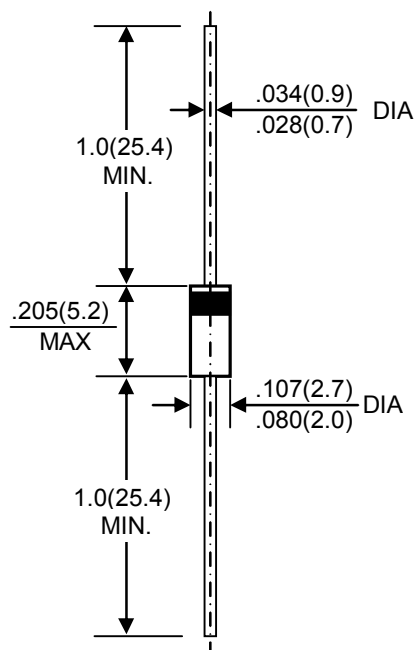
FEATURES

- High reliability
- Very sharp reverse characteristic
- Low reverse current level
- Vz-tolerance $\pm 5\%$

APPLICATIONS

- Voltage stabilization

DO-41



Dimensions in inches and (millimeters)

ABSOLUTE MAXIMUM RATINGS

T_J=25°C

Parameter	Test Conditions	Type	Symbol	Value	Unit
Power dissipation	T _{amb} ≤ 50°C		P _v	1	W
Z-current			I _z	P _v /V _z	mA
Junction temperature			T _j	200	°C
Storage temperature range			T _{stg}	-65 ~ +175	°C

MAXIMUM THERMAL RESISTANCE

T_J=25°C

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	I=9.5mm(3/8") T _L =constant	R _{thJA}	100	K/W

ELECTRICAL CHARACTERISTICS

T_J=25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I _F =200mA		V _F			1.2	V

RATING AND CHARACTERISTIC CURVES

1N4728A thru 1N4764A



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

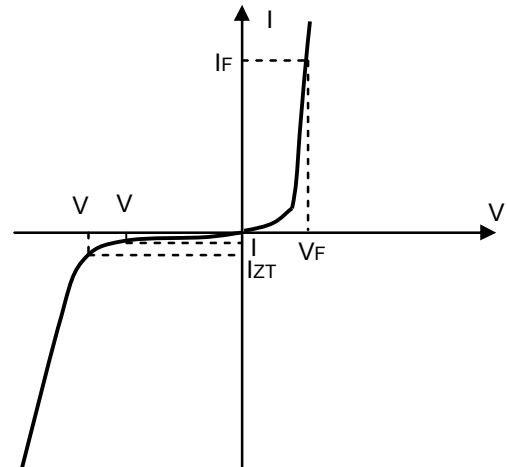


FIG. 1 - ZENER VOLTAGE REGULATOR

FIG. 2 - TEMPERATURE COEFFICIENTS
(-55°C to +150°C temperature; 90% of the units are in the ranges indicated.)

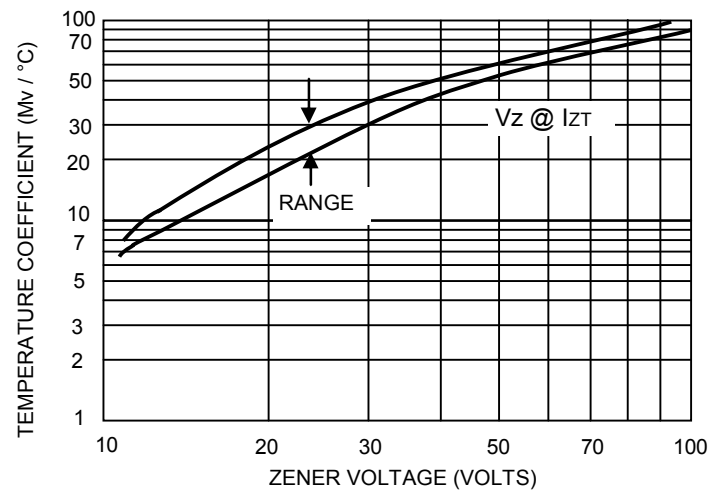
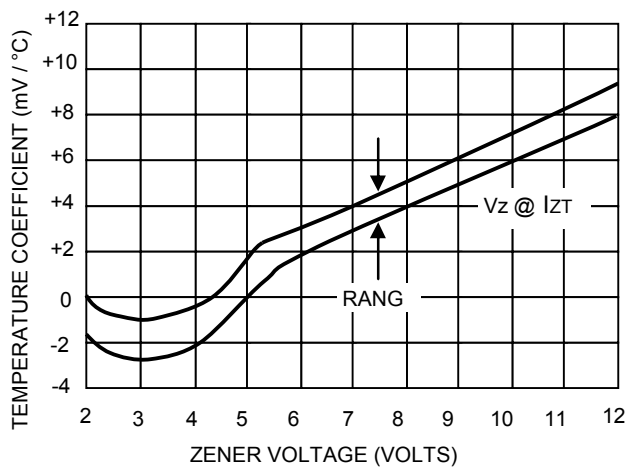


FIG. 3 - EFFECT OF ZENER CURRENT ON ZENER IMPEDANCE

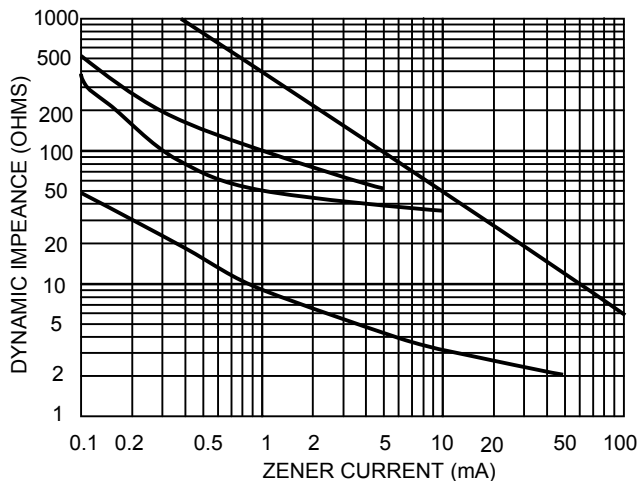
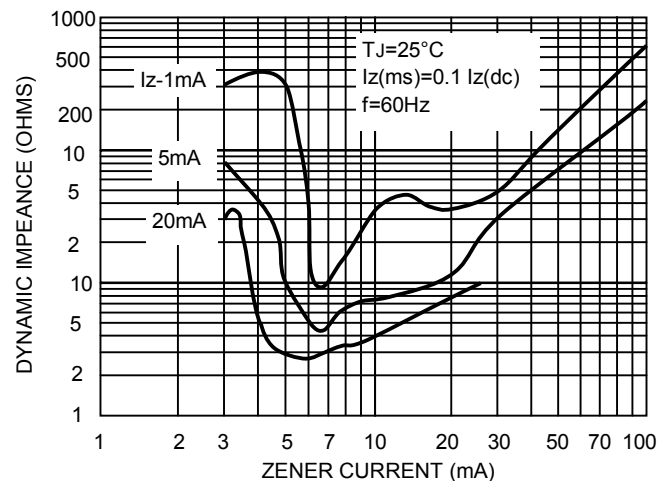


FIG. 4 - EFFECT OF ZENER CURRENT ON ZENER IMPEDANCE





1N4728A thru 1N4764A

1W ZENER DIODES/DO-35/DL-41(MELF)

OPERATING AND STORAGE TEMPERATURE -55°C to +200°C

TYPE	Nominal Zener Voltage $V_Z @ I_{ZT}$	Test Current I_{ZT}	Maximum Zener Impedance		I_{ZK}	Maximum Reverse Leakage Current		Maximum Surge Current I_R	Maximum Regulation Current I_{ZM}
			$Z_{ZT} @ I_{ZT}$	$Z_{ZT} @ I_{ZK}$		I_R	@ V_R		
	Volts	mA	Ohms	Ohms	mA	μA	Volts	mA	mA
1N4728A	3.3	76.0	10	400	1.00	100	1.0	1380	276
1N4729A	3.6	69.0	10	400	1.00	100	1.0	1260	252
1N4730A	3.9	64.0	9.0	400	1.00	50	1.0	1170	234
1N4731A	4.3	58.0	9.0	400	1.00	10	1.0	1085	217
1N4732A	4.7	53.0	8.0	500	1.00	10	1.0	965	193
1N4733A	5.1	49.0	7.0	550	1.00	10	1.0	890	178
1N4734A	5.6	45.0	5.0	600	1.00	10	2.0	810	162
1N4735A	6.2	41.0	2.0	700	1.00	10	3.0	730	146
1N4736A	6.8	37.0	3.5	700	1.00	10	4.0	660	133
1N4737A	7.5	34.0	4.0	700	0.50	10	5.0	605	121
1N4738A	8.2	31.0	4.5	700	0.50	10	6.0	550	110
1N4739A	9.1	28.0	5.0	700	0.50	10	7.0	500	100
1N4740A	10	25.0	7.0	700	0.25	10	7.6	454	91
1N4741A	11	23.0	8.0	700	0.25	5.0	8.4	414	83
1N4742A	12	21.0	9.0	700	0.25	5.0	9.1	380	76
1N4743A	13	19.0	10	700	0.25	5.0	9.9	344	69
1N4744A	15	17.0	14	700	0.25	5.0	11.4	304	61
1N4745A	16	15.5	16	700	0.25	5.0	12.2	285	57
1N4746A	18	14.0	20	750	0.25	5.0	13.7	250	50
1N4747A	20	12.5	22	750	0.25	5.0	15.2	225	45
1N4748A	22	11.5	23	750	0.25	5.0	16.7	205	41
1N4749A	24	10.5	25	750	0.25	5.0	18.2	190	37
1N4750A	27	9.5	35	750	0.25	5.0	20.6	170	34
1N4751A	30	8.5	40	1000	0.25	5.0	22.8	150	30
1N4752A	33	7.5	45	1000	0.25	5.0	25.1	135	27
1N4753A	36	7.0	50	1000	0.25	5.0	27.4	125	25
1N4754A	39	6.5	60	1000	0.25	5.0	29.7	115	23
1N4755A	43	6.0	70	1500	0.25	5.0	32.7	110	22
1N4756A	47	5.5	80	1500	0.25	5.0	35.8	95	16
1N4757A	51	5.0	95	1500	0.25	5.0	38.8	90	18
1N4758A	56	4.5	110	2000	0.25	5.0	42.6	80	16
1N4759A	63	4.0	125	2000	0.25	5.0	47.1	70	14
1N4760A	68	3.7	150	2000	0.25	5.0	51.7	65	13
1N4761A	75	3.3	175	2000	0.25	5.0	56.0	60	12
1N4762A	82	3.0	200	2000	0.25	5.0	62.2	55	11
1N4763A	91	2.8	250	2000	0.25	5.0	69.2	50	10
1N4764A	100	2.5	350	2000	0.25	5.0	76.0	45	9.0

NOTE: 1. Suffix "A" Indicates $\pm 5\%$ Tolerance.