

■ **FEATURES**

- $P_{tot}$  1.5W
- $V_z$  3.3V-240V

■ **MAXIMUM RATINGS** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

Item	Symbol	Limit	Unit
Zener Current	$I_z$ MAX	See Table	mA
Power dissipation @ $T_L=75$ ( Note 1 )	$P_t$	1.5	W
Forward voltage @ $I_F = 200$ mA	$V_F$	1.5	V
Thermal Resistance (Between junction and ambient , Note1)	$R_{\theta}$ (ja)	28	$^{\circ}\text{C/W}$
Junction temperature / Storage temperature range	$T_J, T_{STG}$	-55~+175	$^{\circ}\text{C}$

Notes 1.  $T_a$ --Temp. of Lead at which 9.5mm from the body

■ **ELECTRICAL CHARACTERISTICS** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

Type (Note1)	Zener voltage $V_z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R @ V_R$	$@V_R$	$@V_{(BR)}$
								$I_{ZM} @ 50^{\circ}\text{C}$ ( Note3)
	V	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	$@V_R$	mA
1N5913B	3.3	113.6	10	500	1.0	100	1.0	454
1N5914B	3.6	104.2	9.0	500	1.0	75	1.0	416
1N5915B	3.9	96.1	7.5	500	1.0	25	1.0	384
1N5916B	4.3	87.2	6.0	500	1.0	5.0	1.0	348
1N5917B	4.7	79.8	5.0	500	1.0	5.0	1.5	319

■ **ELECTRICAL CHARACTERISTICS** ( $T_a=25^{\circ}\text{C}$  Unless otherwise specified)

Type (Note1)	Zener voltage $V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R @ V_R$	$@ V_R$	$@ V_{(BR)}$
	V	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	$@ V_R$	$I_{ZM} @ 50^{\circ}\text{C}$ (Note3)
								mA
1N5918B	5.1	73.5	4.0	500	1.0	5.0	2.0	294
1N5919B	5.6	66.9	2.0	500	1.0	5.0	3.0	267
1N5920B	6.2	60.5	2.0	200	1.0	5.0	4.0	241
1N5921B	6.8	55.1	2.5	200	1.0	5.0	5.2	220
1N5922B	7.5	50.0	3.0	400	0.5	5.0	6.0	200
1N5923B	8.2	45.7	3.5	400	0.5	5.0	6.5	182
1N5924B	9.1	41.2	4.0	500	0.5	5.0	7.0	164
1N5925B	10	37.5	4.5	500	0.25	5.0	8.0	150
1N5926B	11	34.1	5.5	550	0.25	5.0	8.4	136
1N5927B	12	31.2	6.5	550	0.25	1.0	9.1	125
1N5928B	13	28.8	7.0	550	0.25	1.0	9.9	115
1N5929B	15	25.0	9.0	600	0.25	1.0	11.4	100
1N5930B	16	23.4	10	600	0.25	1.0	12.2	93
1N5931B	18	20.8	12	650	0.25	1.0	13.7	83
1N5932B	20	18.7	14	650	0.25	1.0	15.2	75
1N5933B	22	17.0	17.5	650	0.25	1.0	16.7	68
1N5934B	24	15.6	19	700	0.25	1.0	18.2	62
1N5935B	27	13.9	23	700	0.25	1.0	20.6	55
1N5936B	30	12.5	26	750	0.25	1.0	22.8	50
1N5937B	33	11.4	33	800	0.25	1.0	25.1	45

■ **ELECTRICAL CHARACTERISTICS** ( $T_a=25^\circ\text{C}$  Unless otherwise specified)

Type (Note1)	Zener voltage $V_{Z@I_{ZT}}$	$I_{ZT}$	$Z_{ZT@I_{ZT}}$	$Z_{ZK@I_{ZK}}$	$I_{ZK}$	$I_R@V_R$	$@V_R$	$@V_{(BR)}$
	V	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	$@V_R$	$I_{ZM@50^\circ\text{C}}$ (Note3)
								mA
1N5938B	36	10.4	38	850	0.25	1.0	27.4	41
1N5939B	39	9.6	45	900	0.25	1.0	29.7	38
1N5940B	43	8.7	53	950	0.25	1.0	32.7	34
1N5941B	47	8.0	67	1000	0.25	1.0	35.8	31
1N5942B	51	7.3	70	1100	0.25	1.0	38.8	29
1N5943B	56	6.7	86	1300	0.25	1.0	42.6	26
1N5944B	62	6.0	100	1500	0.25	1.0	47.1	24
1N5945B	68	5.5	120	1700	0.25	1.0	51.7	22
1N5946B	75	5.0	140	2000	0.25	1.0	56.0	20
1N5947B	82	4.6	160	2500	0.25	1.0	62.2	18
1N5948B	91	4.1	200	3000	0.25	1.0	69.2	16
1N5949B	100	3.7	250	3100	0.25	1.0	76.0	15
1N5950B	110	3.4	300	4000	0.25	1.0	83.6	13
1N5951B	120	3.1	380	4500	0.25	1.0	91.2	12
1N5952B	130	2.9	450	5000	0.25	1.0	98.8	11
1N5953B	150	2.5	600	6000	0.25	1.0	114.0	10
1N5954B	160	2.3	700	6500	0.25	1.0	121.6	9.0
1N5955B	180	2.1	900	7000	0.25	1.0	136.8	8.0
1N5956B	200	1.9	1200	8000	0.25	1.0	152.0	7.0
1N5957B	240	1.5	1600	9000	0.25	1.0	182.4	6.0

Notes :

1. Zener Tolerance:  $\pm 5\%$  .
2. 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  $I_{ZK}$  .
3. The max zener current is not absolute , Please confirm that the product of the voltage and current should not exceed the rated Power dissipation in actual zener application.

■ **CHARACTERISTICS (TYPICAL)**

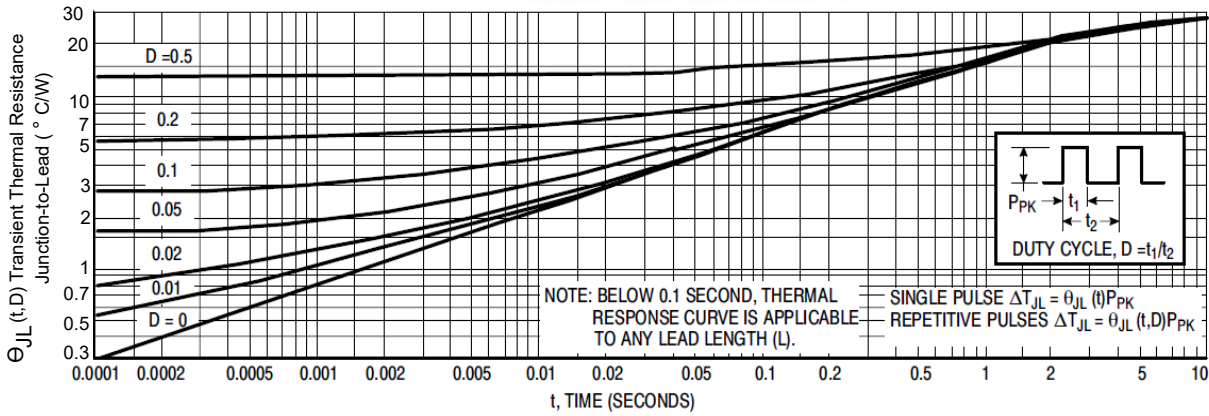
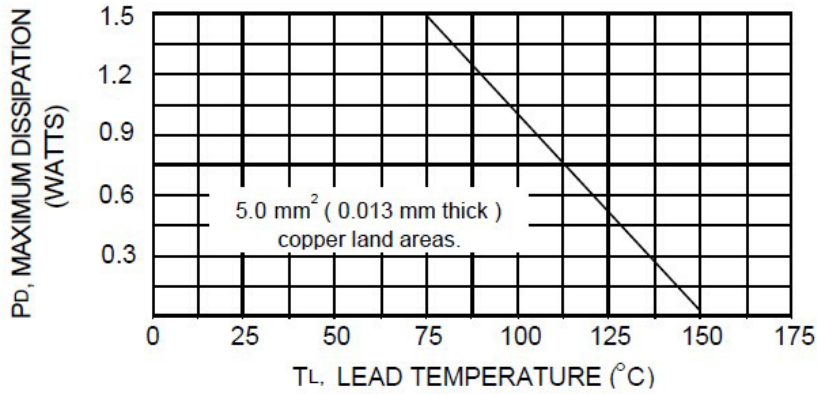


Figure 2. Typical Thermal Response L, Lead Length = 3/8 Inch

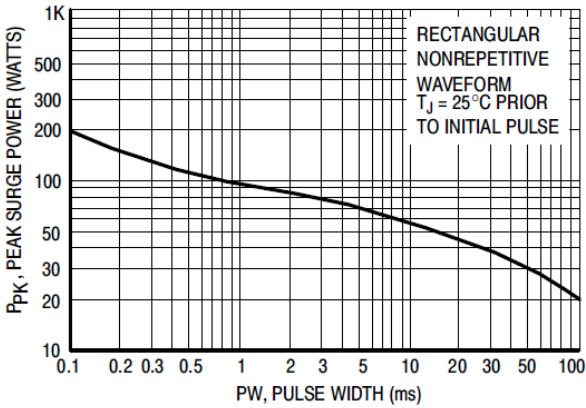


Figure 3. Maximum Surge Power

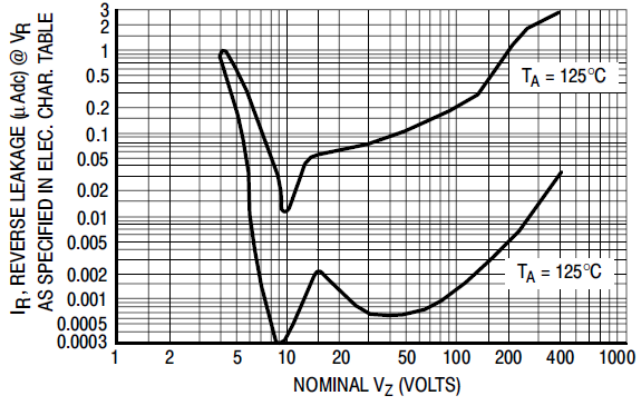
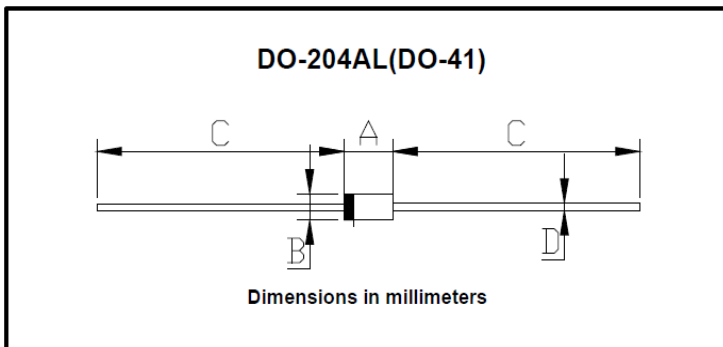


Figure 4. Typical Reverse Leakage

■ **OUTLINE DIMENSIONS**

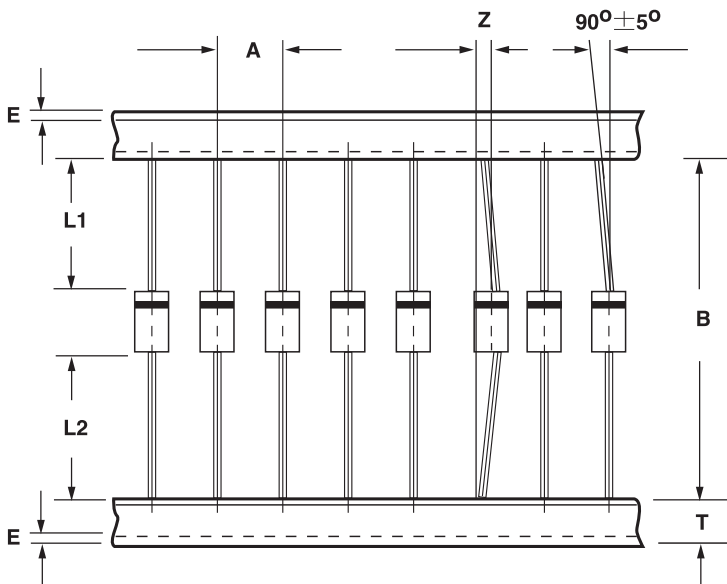


DO-204AL(DO-41)		
Dim	Min	Max
A	4.22	5.21
B	2.03	2.72
C	25.4	/
D	0.69	0.86

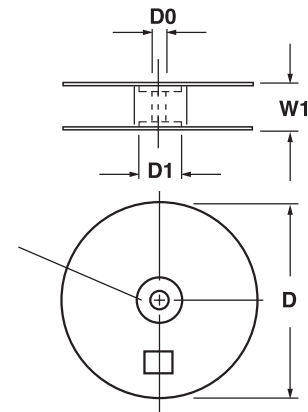
**REEL TAPING & AMMO BOX PACKAGING SPECIFICATIONS FOR AXIAL LEAD DIODES**

COMPONENT OUTLINE	COMPONENT PITCH A	INNER TAPE SPACING B*	CUMULATIVE PITCH A TOLERANCE
	±0.5mm (.020")	±1.5mm (.059")	
DO-34/DO-35	5.0mm	52.4mm	2.0mm/10 pieces
R-1	5.0mm	52.4mm	2.0mm/10 pieces
A-405	5.0mm	52.4mm	2.0mm/10 pieces
DO-41	5.0mm	52.4mm	2.0mm/10 pieces
DO-15	5.0mm	52.4mm	2.0mm/10 pieces
R-3	5.0mm	52.4mm	2.0mm/10 pieces
DO-27/DO-201AE	10.0mm	52.4mm	2.0mm/10 pieces
R-6/R-6M	10.0mm	52.4mm	2.0mm/10 pieces

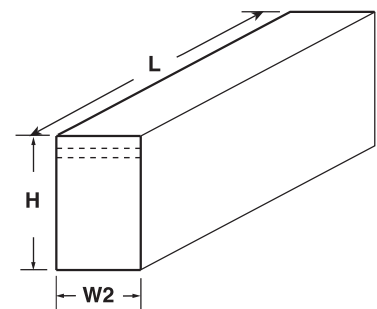
\*INNER TAPE SPACING B 26mm for DO-34/DO-35/R-1/A-405 also available upon request.



Tape & Reel:



Tape & Box:



Use suffix A for Tape & Box.  
Use suffix R for Tape & Reel.

ITEM	SYMBOL	SPECIFICATIONS (mm)	SPECIFICATIONS (inch)
Component alignment	Z	1.2max.	0.048 max.
Tape width	T	6.0±0.4	0.236±0.016
Exposed adhesive	E	0.8 max.	0.032 max.
Body centering on tape	L1-L2	1.0max.	0.040 max.
Reel outside diameter	D	330	13
Reel inner diameter	D1	85.7±0.3	3.375±0.012
Feed hole diameter	D0	16.6±0.4	0.655±0.016
Reel width	W1	79.0±1.0	3.110±0.040
Box length	L	255.0±5.0	10.04±0.197
Box width	W2	78.0±5.0	3.070±0.197
Box height	H	95.0±5.0	3.740±0.197

NOTE: 1.Each component lead shall be sandwiched between tapes for a minimum of 3.2mm (0.126inch)  
2.The reel width "W1" and the box width "W2" for 26mm taping are 50.0±1.0mm (1.97±0.040inch)