T-11-23

L6 SERIES

Hermetically Sealed Metal Packaged ▪ Surge Suppressor Diode
Voltage Range 5V1 to 200 Volts
75 Watt Steady State ▪ 5 KWatt Peak Power

APPLICATIONS

- A range of high power zener and avalanche surge suppressor diodes available to BS 9305-F-081 in a hermetically sealed DO5 package in both unipolar and bipolar configurations.

FEATURES

- Hermetically sealed DO5 package
- Available in both uni and bipolar
- Stud mounted
- High reliability
- T operating -55°C to +175°C

MECHANICAL CHARACTERISTICS

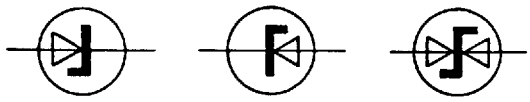
- Case: Hermetically sealed DO5 outline
- Finish: All external surfaces are corrosion resistant and terminal solderable
- Identification: Body marked with Type No., logo and zener symbol
- Polarity: Indicated by direction of zener symbol
- Weight: 14 grammes approximately excluding mounting kit

ELECTRICAL CHARACTERISTICS

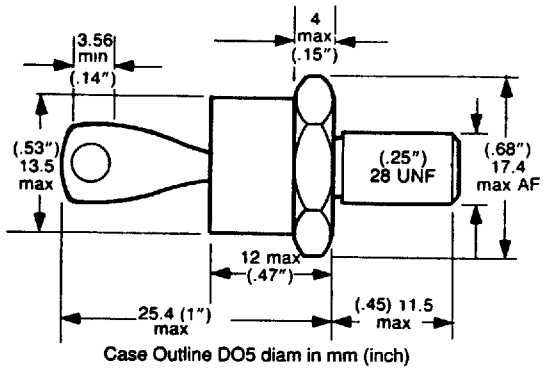
- FORWARD VOLTAGE Vf 1.5V max. @ If ≤ 10A
- Vz measured with pulse ≤ 100µS
- Turn-on time Unipolar ≤ 10^{-12}µS
  Bipolar ≤ 5 x 10^{-9}S

All electrical characteristics 25°C unless otherwise stated.

AVAILABLE IN THE FOLLOWING CONFIGURATIONS

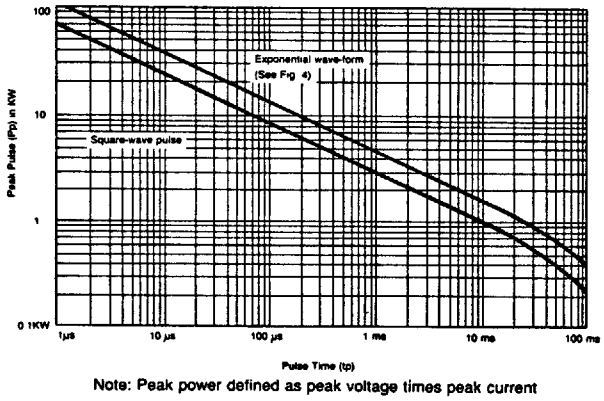


Stud Cathode Normal | Stud Anode Reverse | Double Anode



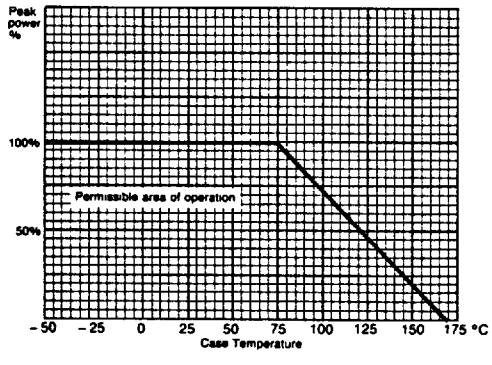
Case Outline DO5 diam in mm (inch)

NON-REPETITIVE PEAK PULSE POWER RATING CURVE



Note: Peak power defined as peak voltage times peak current

PEAK POWER DERATING CURVE



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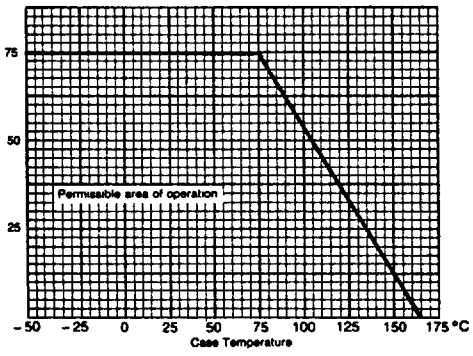
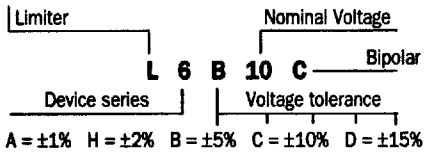
Electrical Characteristics @ 25°C

Type	Reverse Breakdown Voltage B_V @ I_t		Reverse Standoff Voltage V_R @ max I_R		Max. Clamping Voltage at Peak Pulse Current V_{CL} @ I_{PP}		V_{CL} @ I_{PP}		Max. Clamping Voltage V_{CL}	Max Peak Pulse Current I_{ZSM}	Max. Temp Coef of BV (% per °C)	Typical Capacitance at Standoff Voltage 1MHZ (pF)
	(V)	(mA)	(V)	(mA)	(V)	(A)	(V)	(A)	(V)	(A)		
L6B5.1	4.8-5 4	25	4.2	15	7.0	150	8.0	200	–	–	–.02	19K
L6H5.4	5.3-5.3	25	4.7	15	7.0	100	7.5	200	–	–	–.01 + .02	18K
L6B5.6	5.3-5.5	25	4.7	15	7.0	100	8.0	200	–	–	–.01 + .02	18K
L6B6.2A	6.0-6.4	10	5.0	5.0	7.0	30	8	100	–	–	+.03	16K
L6B6.2	5.8-6.6	20	5.2	10	8.0	60	10.0	200	–	–	+.03	16K
L6B6.8	6.4-7.2	25	5.7	5	8.5	60	10.5	185	10.5	476	+.04	15K
L6B7.5	7.1-7.9	25	6.3	1.0	9.6	55	11.3	171	11.3	443	+.05	13K
L6B8.2	7.7-8.7	25	6.9	1.0	10.0	53	12.1	161	12.1	413	+.06	11K
L6B9.1	8.6-9.6	10	7.7	0.5	11.4	48	13.4	145	13.4	373	+.06	11K
L6B10	9.5-10.5	10	8.5	0.1	12.3	44	14.5	134	14.5	345	+.07	10K
L6B11	10.4-11.6	10	9.3	0.1	13.3	41	15.6	124	15.6	321	+.07	8K
L6B12	11.4-12.7	10	10.2	0.1	14.2	39	16.7	117	16.7	299	+.08	7.5K
L6B13	12.4-14.1	10	11.1	0.1	15.4	5	18.2	106	18.2	275	+.08	6.5K
L6B15	13.8-15.6	10	12.4	0.1	18.0	30	21.2	92.3	21.2	236	+.08	6.0K
L6B16	15.3-17.1	10	13.7	0.1	19.1	29	22.5	87.1	22.5	222	+.08	5.5K
L6B18	16.8-19 1	10	15.1	0.1	21.4	25	25.2	76.7	25.2	198	+.08	5.0K
L6B20	18.8-21.2	10	16.9	0.1	23.5	23	27.7	70.2	27.7	181	+.09	4.5K
L6B22	20.8-23.3	10	18.7	0.1	26.0	21	30.6	63.7	30.6	163	+.09	4.0K
L6B24	22.7-25.9	10	20.4	0.1	28.2	20	33.2	58.5	33.2	151	+.09	3.5K
L6B27	25.1-28.9	10	22.5	0.1	31.8	17	37.5	52.0	37.5	133	+.09	3.0K
L6B30	28.0-32.0	10	25.2	0.1	35.1	15	41.4	46.8	41.4	121	+.10	2.7K
L6B33	31.0-35.0	10	27.9	0.1	38.8	14	45.7	43.0	45.7	109	+.10	2.4K
L6B36	34.0-38.0	10	30.6	0.1	42.4	13	49.9	39.0	49.9	100	+.10	2.1K
L6B39	37.0-41.0	10	33.2	0.1	45.8	12	53.9	37.4	53.9	93	+.10	2.0K
L6B43	40.0-46.0	10	36.0	0.1	50.4	11	59.3	32.9	59.3	84	+.10	1.7K
L6B47	44.0-50.0	10	39.6	0.1	55.0	10	64.8	30.2	64.8	77	+.11	1.5K
L6B51	48.0-54.0	10	43.2	0.1	59.6	9.2	70.1	27.8	70.1	71	+.11	1.3K
L6B56	52.0-60.0	10	46.8	0.1	65 5	8.4	77.0	25.3	77.0	65	+.11	1.1K
L6B62	58.0-66 0	10	52.2	0.1	72.2	7.6	85.0	23.0	85.0	59	+.11	1.0K
L6B68	64.0-72.0	10	57.6	0.1	78.2	7.0	92.0	21.2	92.0	54	+.11	900
L6B75	70.0-79.0	10	63.0	0.1	87.5	6.3	103	19.0	103	49	+.11	800
L6B82	77.0-87.0	10	69.0	0.1	96.0	5.8	113	17.3	113	44	+.11	700
L6B91	85.0-96.0	10	76.0	0.1	106	5.2	125	15.6	125	40	+.11	600
L6B100	94.0-106	10	84.0	0.1	116	4.8	137	14.3	137	37	+.11	500
L6B110	104-116	10	93.0	0.1	129	4.3	152	12.9	152	33	+.11	400
L6B120	114-127	10	102	0.1	140	3.9	165	11.8	165	30	+.11	350
L6B130	124-141	10	111	0.1	152	3.6	179	10.9	179	27.9	+.11	350
L6B150	138-156	10	124	0.1	175	3.1	207	9.4	207	24.2	+.11	250
L6B160	153-171	10	137	0.1	195	2.8	230	8.4	219	22.8	+.11	200
L6B180	168-191	10	151	0.1	209	2.6	246	8.0	246	20.3	+.11	175
L6B200	188-212	10	169	0.1	233	2.4	274	7.2	274	18.3	+.11	150

POWER DERATING CURVE



Code Interpretation/Ordering Information



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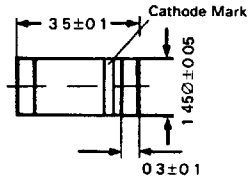
OUTLINE DRAWINGS

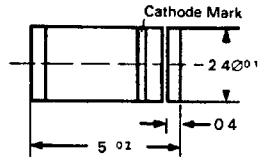
Unit = inch (mm)

DL-35 MiniMELF



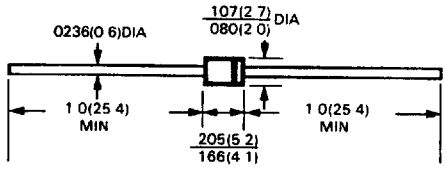
UNIT=(mm)

DL-41 MELF

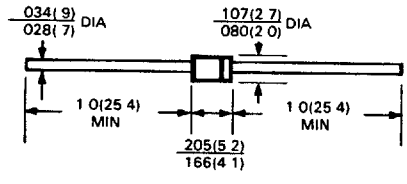


UNIT=(mm)

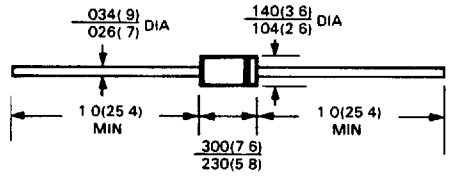
A-405



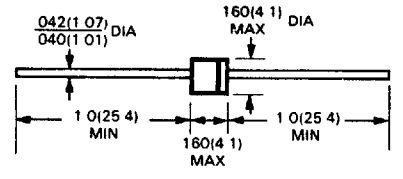
DO-41



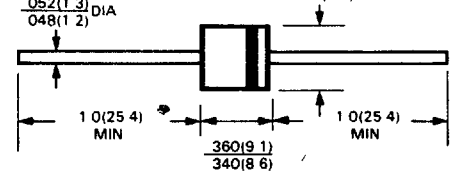
DO-15



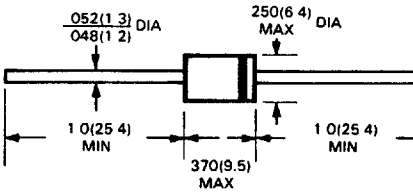
R-3



R-6



DO-201AD



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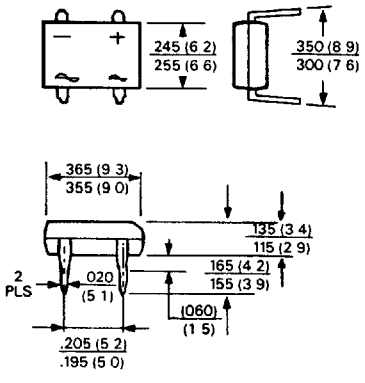
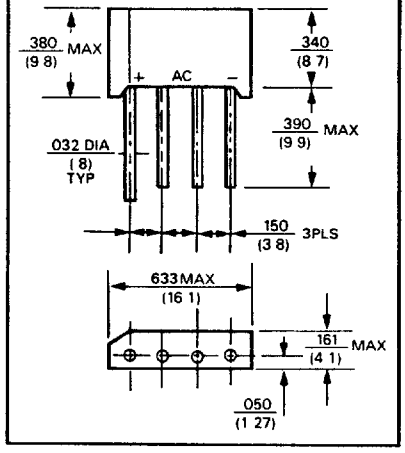
OUTLINE DRAWINGS

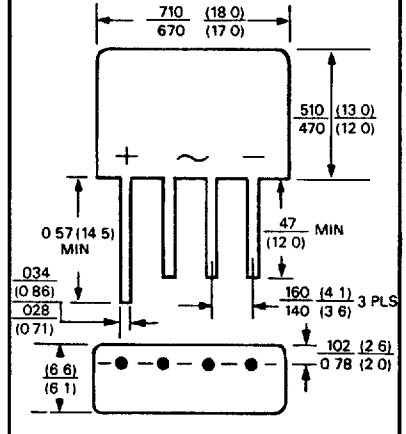
DB-1



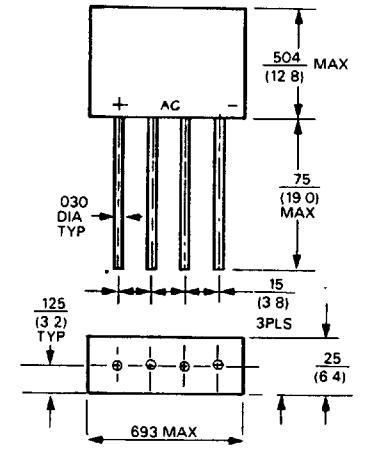
RS-1



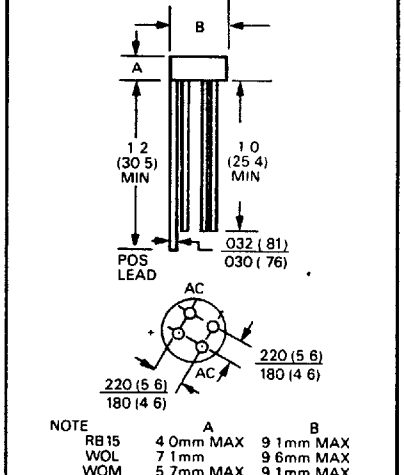
RS-2



BR8D

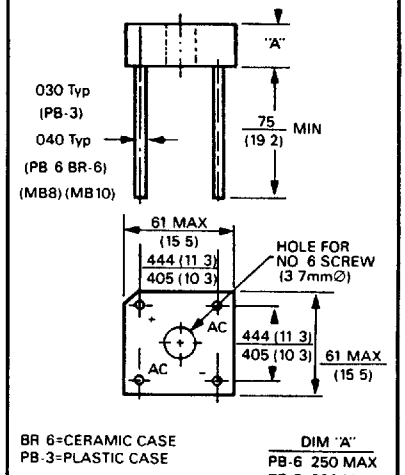


RB-15/WOL/WOM



NOTE	A	B
RB15	4 0mm MAX	9 1mm MAX
WOL	7 1mm	9 6mm MAX
WOM	5 7mm MAX	9 1mm MAX

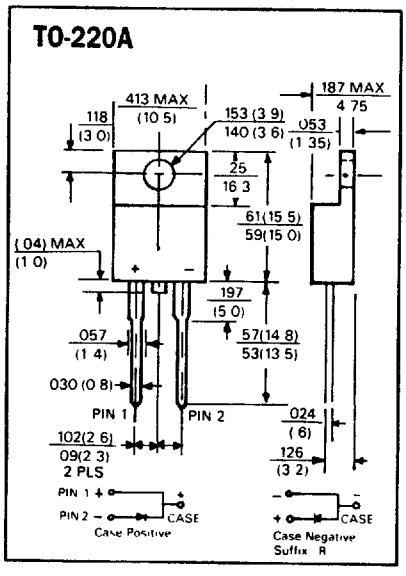
PB-3/BR-6/PB-6

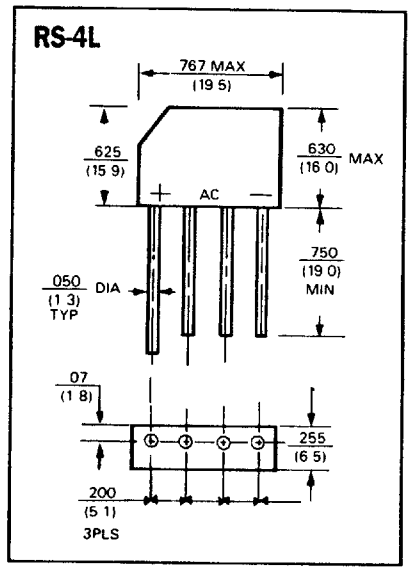


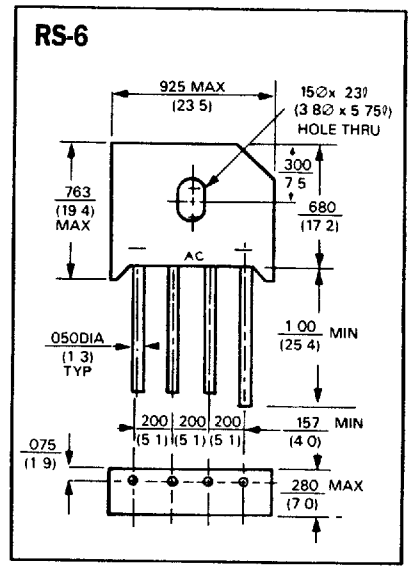
BR 6=CERAMIC CASE
PB-3=PLASTIC CASE

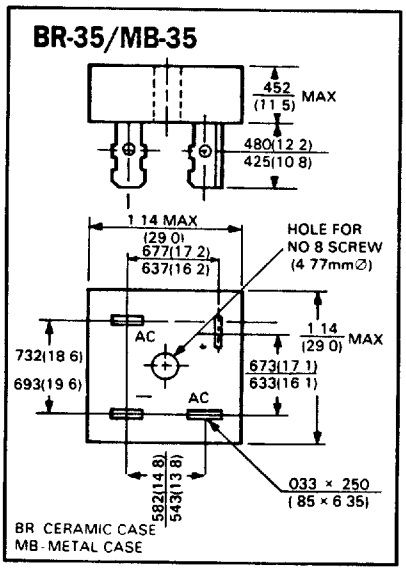
DIM "A"
PB-6 250 MAX
PB-3 200 MAX

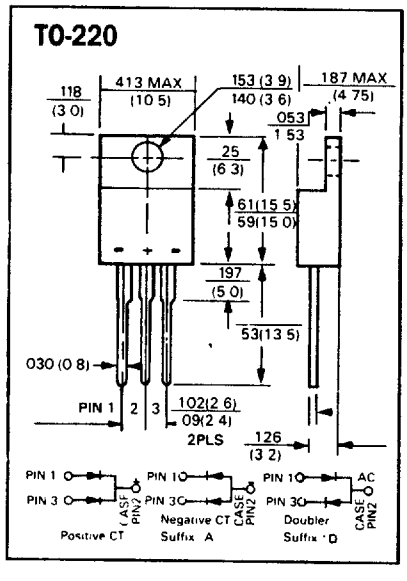
OUTLINE DRAWINGS

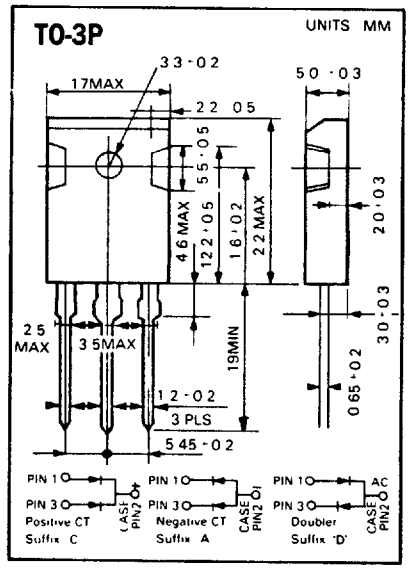












RECTIFIERS

Product Packaging Specifications

PACKAGING OF AXIAL LEAD DIODES, MELF AND MINI-MELF SURFACE MOUNT DEVICES AND TRANSISTORS

REEL PACK

OUTLINE	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA. (m/m)	QTY./REEL (each)
DO-7	5.0	52.4	330	10,000
DO-35	5.0	53	355	10,000
DO-35 (ZENER)	[RADIAL TAPING SEE FIG. 1, 2 & 3]		355	5,000
DL-35 (MINI MELF)	See Pg. 37		250/330	5,000/10,000
DL-41 (MELF)	See Pg. 37		330	5,000
A-405	5.0	52.4	330	5,000
A-500	5.0	52.4	203/254/304	1,000/2,000/3,000
DO-41	5.0	52.4	330	5,000
DO-41 (ZENER)	5.0	53	355	5,000
DO-15	5.0	52.4	330	4,000
R-3	5.0	52.4	330	3,000
DO-201AD	10.0	52.4	330	1,200
R-6	10.0	52.4	330	500
TO-92	[RADIAL TAPING SEE FIG. 4, 5 & 6]		355	2,000
TO-236/SOT-23	[SEE SPECIFICATIONS ON PG.38]		178	3,000

PACKAGING OF AXIAL LEAD DIODES AND LEADED TRANSISTORS

AMMO PACK

OUTLINE	COMPONENT SPACE (mm)	TAPE SPACE (mm)	BOX SIZE (m/m)	QTY./BOX (each)
DO-35 (SW. DIODES)	5.0	53	338/147/77	15,000
DO-35	5.0	53	255/95/85	6,000
DO-35	5.0	26	255/95/51	6,000
A-405	5.0	52.4	255/95/78	3,000
DO-41	5.0	52.4	255/95/78	3,000
DO-41	5.0	26	255/51/95	3,000
DO-41 (ZENER)	5.0	53	255/95/85	3,000
DO-41 (ZENER)	5.0	26	255/95/51	3,000
DO-15	5.0	52.4	255/95/78	2,200
R-3	5.0	52.4	255/95/78	2,000
DO-201AD	10.0	52.4	255/95/78	800
R-6	10.0	52.4	255/95/78	300
TO-92	[RADIAL TAPING, SEE FIG. 4]		340/340/45	4,000