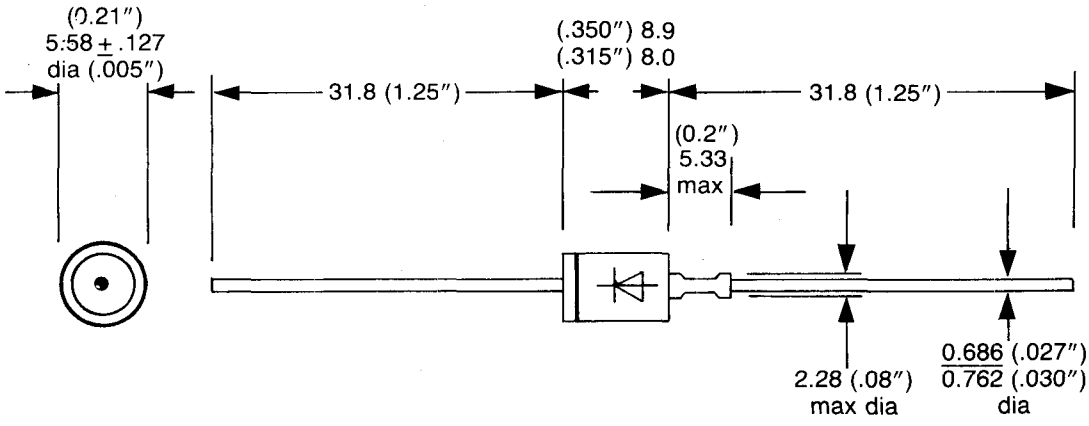
1.5KW Transient Absorption Zener Diode

A range of unipolar Protection diodes in a hermetically sealed metal and glass DO13 package.

P_{surge}	1.5KW; 1mS expo
$P_{max\ cont}$	1W
V_Z	6.8-200V
t_{on}	$\leqslant 10^{-12}$S
$T_{op\ \&\ stg}$	−65 to +175°C



Case Outline dim in mm DO13

L13 Series

Electrical Characteristics at 25°C

JEDEC Type No.	SEMITRON Type No.	Breakdown Voltage V_{BR} Volts			Breakdown Current I_t mA	Reverse stand-off voltage V_R Volts	Max reverse leakage @ V_R I_RµA	Max clamping voltage V_{CL} Volts	Max peak pulse current Izsm	Temp coef %/°C	Typical capacitance at 0 Volts f= 1MHZ pF
		Nominal	±5% Voltage Tol								
IN5629A	L13B6v8	6.8	6.45	7.14	10	5.80	1000	10.5	143	+.057	22000
IN5630A	L13B7v5	7.5	7.13	7.88	10	6.40	500	11.3	132	+.061	19200
IN5631A	L13B8v2	8.2	7.79	8.61	10	7.02	200	12.1	124	+.065	17400
IN5632A	L13B9v1	9.1	8.65	9.55	1	7.78	50	13.4	112	+.068	14800
IN5633A	L13B10	10	9.5	10.5	1	8.55	10	14.5	103	+.073	13000
IN5634A	L13B11	11	10.5	11.6	1	9.40	5	15.6	96.0	+.075	11400
IN5635A	L13B12	12	11.4	12.6	1	10.2	5	16.7	90.0	+.078	10200
IN5636A	L13B13	13	12.4	13.7	1	11.1	5	18.2	82.0	+.081	8800
IN5637A	L13B15	15	14.3	15.8	1	12.8	5	21.2	71.0	+.084	7800
IN5638A	L13B16	16	15.2	16.8	1	13.6	5	22.5	67.0	+.086	7000
IN5639A	L13B18	18	17.1	18.9	1	15.3	5	25.2	59.5	+.088	6200
IN5640A	L13B20	20	19.0	21.0	1	17.1	5	27.7	54.0	+.090	5700
IN5641A	L13B22	22	20.9	23.1	1	18.8	5	30.6	49.0	+.092	5100
IN5642A	L13B24	24	22.8	25.2	1	20.5	5	33.2	45.0	+.094	4600
IN5643A	L13B27	27	25.7	28.4	1	23.1	5	37.5	40.0	+.096	4200
IN5644A	L13B30	30	28.5	31.5	1	25.6	5	41.4	36.0	+.097	3700
IN5645A	L13B33	33	31.4	34.7	1	28.2	5	45.7	33.0	+.098	3250
IN5646A	L13B36	36	34.2	37.8	1	30.8	5	49.9	30.0	+.099	2900
IN5647A	L13B39	39	37.1	41.0	1	33.3	5	53.9	28.0	+.100	2700
IN5648A	L13B43	43	40.9	45.2	1	36.8	5	59.3	25.3	+.101	2400
IN5649A	L13B47	47	44.7	49.4	1	40.2	5	64.8	23.2	+.101	2200
IN5650A	L13B51	51	48.5	53.6	1	43.6	5	70.1	21.4	+.102	2000
IN5651A	L13B56	56	53.2	58.8	1	47.8	5	77.0	19.5	+.103	1850
IN5652A	L13B62	62	58.9	65.1	1	53.0	5	85.0	19.5	+.104	1650
IN5653A	L13B68	68	64.6	71.4	1	58.1	5	92.0	16.3	+.104	1500
IN5654A	L13B75	75	71.3	78.8	1	64.1	5	103	14.6	+.105	1350
IN5655A	L13B82	82	77.9	86.1	1	70.1	5	113	13.3	+.105	1250
IN5656A	L13B91	91	86.5	95.5	1	77.8	5	125	12.0	+.106	1100
IN5657A	L13B100	100	95.0	105	1	85.5	5	137	11.0	+.106	1000
IN5658A	L13B110	110	105	116	1	94.0	5	152	9.9	+.107	920
IN5659A	L13B120	120	114	126	1	102	5	165	9.1	+.107	840
IN5660A	L13B130	130	124	137	1	111	5	179	8.4	+.107	780
IN5661A	L13B150	150	143	158	1	128	5	207	7.2	+.108	660
IN5662A	L13B160	160	152	168	1	136	5	219	6.8	+.108	620
IN5663A	L13B170	170	162	179	1	145	5	234	6.4	+.108	600
IN5664A	L13B180	180	171	189	1	154	5	246	6.1	+.108	560
IN5665A	L13B200	200	190	210	1	171	5	274	5.5	+.108	500

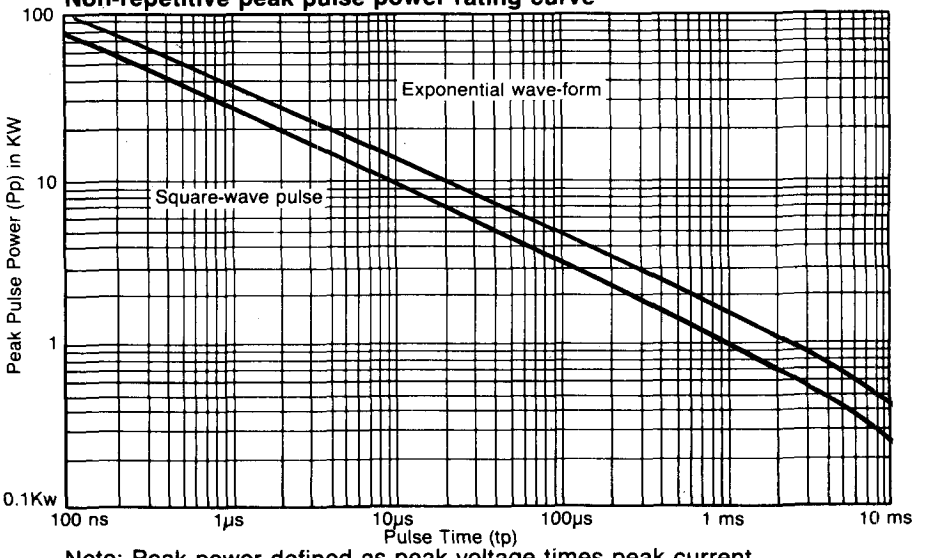
Transient Absorption Zener Diode

L13 Series

Electrical Characteristics at 25°C

JEDEC Type No.	SEMITRON Type No.	Breakdown Voltage V_{BR} Volts			Break-down Current I_t mA	Reverse stand-off voltage V_R Volts	Max reverse leakage @ V_R IRμA	Max clamping voltage V_{CL} Volts	Max peak pulse current I_{ZSM}	Temp coef %/°C	Typical capacitance at 0 Volts f= 1MHZ pF
		Nominal	±10% Voltage Tol								
IN5629	L13C6v8	6.8	6.12	7.48	10	5.50	1000	10.8	139	+.057	22000
IN5630	L13C7v5	7.5	6.75	8.25	10	6.05	500	11.7	128	+.061	19200
IN5631	L13C8v2	8.2	7.38	9.02	10	6.63	200	12.5	120	+.065	17400
IN5632	L13C9v1	9.1	8.19	10.00	1	7.37	50	13.8	109	+.068	14800
IN5633	L13C10	10	9.00	11.0	1	8.10	10	15.0	100	+.073	13000
IN5634	L13C11	11	9.90	12.1	1	8.92	5	16.2	93	+.075	11400
IN5635	L13C12	12	10.8	13.2	1	9.72	5	17.3	87	+.078	10200
IN5636	L13C13	13	11.7	14,3	1	10.5	5	19.0	79	+.081	8800
IN5637	L13C15	15	13.5	16.5	1	12.1	5	22.0	68	+.084	7800
IN5638	L13C16	16	14.4	17.6	1	12.9	5	23.5	64	+.086	7000
IN5639	L13C18	18	16.2	19.8	1	14.5	5	26.5	56.5	+.088	6200
IN5640	L13C20	20	18.0	22.0	1	16.2	5	29.1	51.5	+.090	5700
IN5641	L13C22	22	19.8	24.2	1	17.8	5	31.9	47	+.092	5100
IN5642	L13C24	24	21.6	26.4	1	19.4	5	34.7	43	+.094	4600
IN5643	L13C27	27	24.3	29.7	1	21.8	5	39.1	38.5	+.096	4200
IN5644	L13C30	30	27.0	33.0	1	24.3	5	43.5	34.5	+.097	3700
IN5645	L13C33	33	29.7	36.3	1	26.8	5	47.7	31.5	+.098	3250
IN5646	L13C36	36	32.4	39.6	1	29.1	5	52.0	29	+.099	2900
IN5647	L13C39	39	35.1	42.9	1	31.6	5	56.4	26.5	+.100	2700
IN5648	L13C43	43	38.7	47.3	1	34.8	5	61.9	24	+.101	2400
IN5649	L13C47	47	42.3	51.7	1	38.1	5	67.8	22.2	+.101	2200
IN5650	L13C51	51	45.9	56.1	1	41.3	5	73.5	20.4	+.102	2000
IN5651	L13C56	56	50.4	61.6	1	45.4	5	80.5	18.6	+.103	1850
IN5652	L13C62	62	55.8	68.2	1	50.2	5	89.0	16.9	+.104	1650
IN5653	L13C68	68	61.2	74.8	1	55.1	5	98.0	15.3	+.104	1500
IN5654	L13C75	75	67.5	82.5	1	60.7	5	108	13.9	+.105	1350
IN5655	L13C82	82	73.8	90.2	1	66.4	5	118	12.7	+.105	1250
IN5656	L13C91	91	81.9	100	1	73.7	5	131	11.4	+.106	1100
IN5657	L13C100	100	90.0	110	1	81.0	5	144	10.4	+.106	1000
IN5658	L13C110	110	99.0	121	1	89.2	5	158	9.5	+.107	920
IN5659	L13C120	120	108	132	1	97.2	5	173	8.7	+.107	840
IN5660	L13C130	130	117	143	1	105	5	187	8.0	+.107	780
IN5661	L13C150	150	135	165	1	121	5	215	7.0	+.108	660
IN5662	L13C160	160	144	176	1	130	5	230	6.5	+.108	620
IN5663	L13C170	170	153	187	1	138	5	244	6.2	+.108	600
IN5664	L13C180	180	162	198	1	146	5	258	5.8	+.108	560
IN5665	L13C200	200	180	220	1	162	5	287	5.2	+.108	500

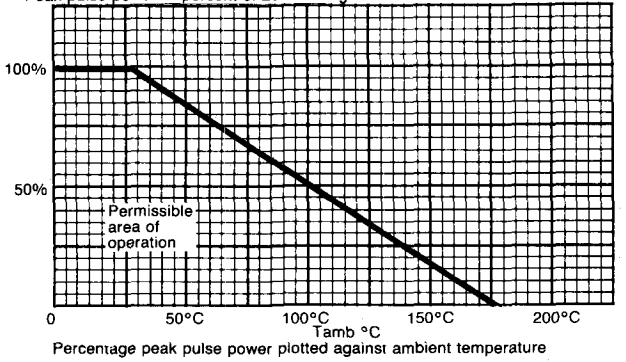
Non-repetitive peak pulse power rating curve



Note: Peak power defined as peak voltage times peak current

Peak Power derating curve

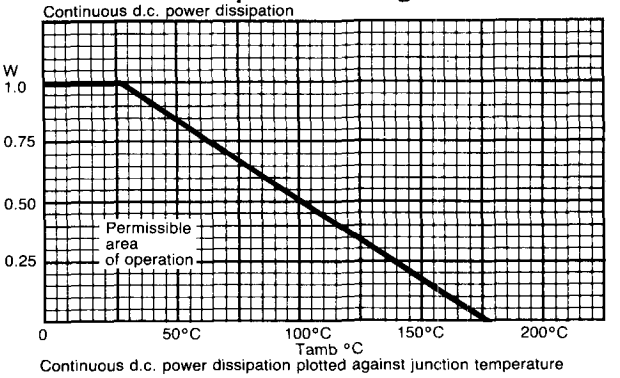
Peak pulse power in percent of 25°C rating



Percentage peak pulse power plotted against ambient temperature

Continuous d.c. power derating curve

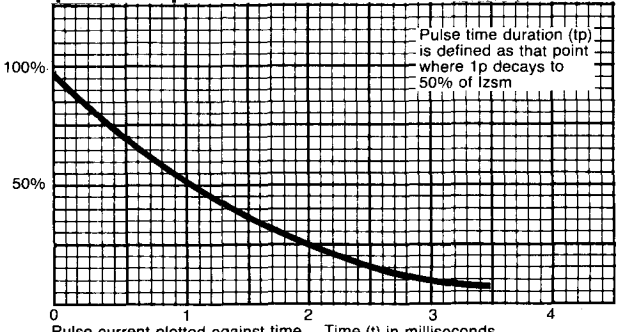
Continuous d.c. power dissipation



Continuous d.c. power dissipation plotted against junction temperature

Exponential pulse waveform

Pulse current (Ip) in percent of Izsm



Pulse current plotted against time Time (t) in milliseconds

Transient Absorption Zener Diodes

L13 Series

Mechanical Characteristics

CASE: Hermetically sealed metal and glass DO13
FINISH: All external surfaces are corrosion resistant and leads solderable
POLARITY: Cathode connected to case
IDENTIFICATION: Body marked with Type no., logo and zener symbol
THERMAL RESISTANCE: 100°C/W junction to ambient
WEIGHT: 1.4 grammes approximately

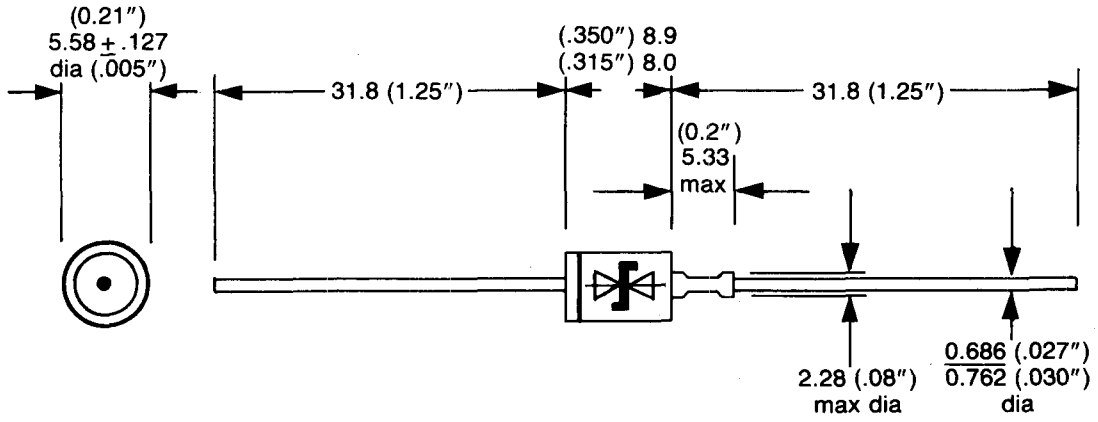
Electrical Characteristics

FORWARD SURGE CURRENT: 167 Amps max for 10mS
PULSE REPETITION RATE: 0.01%
FORWARD VOLTAGE: Vf 1.2V @ If $\leq$ 1 Amp
V_{BR} measured with pulse = 20mS

1.5KW Bi-directional Transient Absorption Zener Diode

A range of bipolar protection diodes in a hermetically sealed metal and glass DO13 package

P_{surge}	1.5KW; 1mS expo
$P_{max\ cont}$	1W
V_Z	7.5-200V
T_{on}	$\leq 5x10^{-12}S$
$T_{op\ \&\ stg}$	−65 to +175°C



Case outline DM in mm DO13

L13 Series

Electrical Characteristics at 25°C

JEDEC Type No.	SEMITRON Type No.	Breakdown Voltage V_{BR} Volts			Break-down Current I_T mA	Reverse stand-off voltage V_R Volts	Max reverse leakage AT V_R $I_R\mu A$	Max clamping voltage V_{CL} Volts	Max peak pulse current Izsm	Temp coef %/°C	Typical capacitance at 0 Volts f= 1MHZ pF
		Nominal	±5% Voltage Tol								
IN6036A	L13B7v5C	7.5	7.13	7.88	10	6.0	1000	11.3	132	+.061	9600
IN6037A	L13B8v2C	8.2	7.79	8.61	10	7.0	500	12.1	124	+.065	8700
IN6038A	L13B9v1C	9.1	8.65	9.55	10	7.5	200	13.4	112	+.068	7400
IN6039A	L13B10C	10	9.5	10.5	1	8.5	50	14.5	103	+.073	6500
IN6040A	L13B11C	11	10.5	11.6	1	9.0	10	15.6	96	+.075	5700
IN6041A	L13B12C	12	11.4	12.6	1	10.0	5	16.7	90	+.078	5100
IN6042A	L13B13C	13	12.4	13.7	1	11.0	5	18.2	82	+.081	4400
IN6043A	L13B15C	15	14.3	15.8	1	12.0	5	21.2	71	+.084	3900
IN6044A	L13B16C	16	15.2	16.8	1	13.0	5	22.5	67	+.086	3500
IN6045A	L13B18C	18	17.1	18.9	1	15.0	5	25.2	59.5	+.088	3100
IN6046A	L13B20C	20	19.0	21.0	1	17.0	5	27.7	54	+.090	2850
IN6047A	L13B22C	22	20.9	23.1	1	18.0	5	30.6	49	+.092	2550
IN6048A	L13B24C	24	22.8	25.2	1	20.0	5	33.2	45	+.094	2300
IN6049A	L13B27C	27	25.7	28.4	1	22.0	5	37.5	40	+.096	2100
IN6050A	L13B30C	30	28.5	31.5	1	25.0	5	41.4	36	+.097	1850
IN6051A	L13B33C	33	31.4	34.7	1	28.0	5	45.7	33	+.098	1600
IN6052A	L13B36C	36	34.2	37.8	1	30.0	5	49.9	30	+.099	1450
IN6053A	L13B39C	39	37.1	41.0	1	33.0	5	53.9	28	+.100	1350
IN6054A	L13B43C	43	40.9	45.2	1	36.0	5	59.3	25.3	+.101	1200
IN6055A	L13B47C	47	44.7	49.4	1	40.0	5	64.8	23.2	+.101	1100
IN6056A	L13B51C	51	48.5	53.6	1	43.0	5	70.1	21.4	+.102	1000
IN6057A	L13B56C	56	53.2	58.8	1	47.0	5	77.0	19.5	+.103	920
IN6058A	L13B62C	62	58.9	65.1	1	53.0	5	85.0	17.7	+.104	8200
IN6059A	L13B68C	68	64.6	71.4	1	58.0	5	92.0	16.3	+.104	750
IN6060A	L13B75C	75	71.3	78.8	1	64.0	5	103	14.6	+.105	670
IN6061A	L13B82C	82	77.9	86.1	1	70.0	5	113	13.3	+.105	620
IN6062A	L13B91C	91	86.5	95.5	1	75.0	5	125	12.0	+.106	550
IN6063A	L13B100C	100	95	105	1	82.0	5	137	11.0	+.106	500
IN6064A	L13B110C	110	105	116	1	94.0	5	152	9.9	+.107	460
IN6065A	L13B120C	120	114	126	1	100	5	168	8.9	+.107	420
IN6066A	L13B130C	130	124	137	1	110	5	182	8.2	+.107	390
IN6067A	L13B150C	150	143	158	1	128	5	213	7.0	+.108	330
IN6068A	L13B170C	170	162	179	1	145	5	245	6.1	+.108	310
IN6069A	L13B180C	180	171	189	1	150	5	261	5.7	+.108	300
IN6070A	L13B190C	190	181	200	1	160	5	278	5.4	+.108	280
IN6071A	L13B200C	200	190	210	1	170	5	294	5.1	+.108	250
IN6072A	L13B220C	220	209	231	1	185	5	328	4.6	+.108	230

Transient Absorption Zener Diode

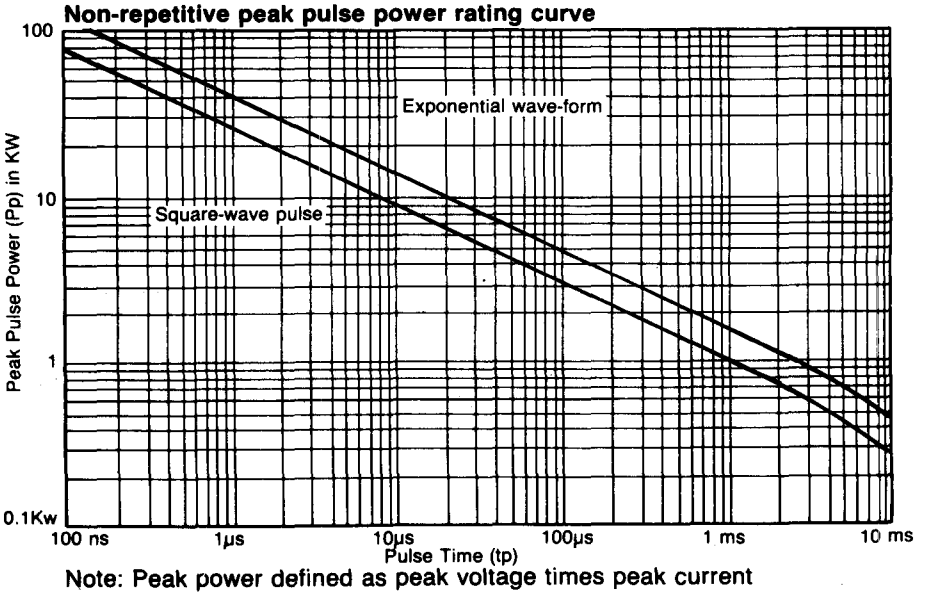
L13 Series

Electrical Characteristics at 25°C

JEDEC Type No.	SEMITRON Type No.	Breakdown Voltage V_{BR} Volts			Break-down Current I_t mA	Reverse stand-off voltage V_R Volts	Max reverse leakage AT V_R IRuA	Max clamping voltage V_{CL} Volts	Max peak pulse current Izsm	Temp coef %/°C	Typical capacitance at 0 Volts f= 1MHZ pF
		Nominal	+10% Voltage Tol								
IN6036	L13C7v5C	7.5	6.75	8.25	10	5.5	1000	11.7	128	+.061	9600
IN6037	L13C8v2C	8.2	7.38	9.02	10	6.5	500	12.5	120	+.065	8700
IN6038	L13C9v1C	9.1	8.19	10.0	10	7.0	200	13.8	109	+.068	7400
IN6039	L13C10C	10	9.00	11.0	1	8.0	50	15.0	100	+.073	6500
IN6040	L13C11C	11	9.9	12.1	1	8.5	10	16.2	93	+.075	5700
IN6041	L13C12C	12	10.8	13.2	1	9.0	5	17.3	87	+.078	5100
IN6042	**L13C13C**	13	11.7	14.3	1	10.0	5	19.0	79	+.081	4400
IN6043	L13C15C	15	13.5	16.5	1	11.0	5	22.0	68	+.084	3900
IN6044	L13C16C	16	14.4	17.6	1	12.0	5	23.5	64	+.086	3500
IN6045	L13C18C	18	16.2	19.8	1	14.0	5	26.5	56.5	+.088	3100
IN6046	L13C20C	20	18.0	22.0	1	16.0	5	29.1	51.5	+.090	2850
IN6047	L13C22C	22	19.8	24.2	1	17.0	5	31.9	47	+.092	2550
IN6048	L13C24C	24	21.6	26.4	1	19.0	5	34.7	43	+.094	2300
IN6049	L13C27C	27	24.3	29.7	1	21.0	5	39.1	38.5	+.096	2100
IN6050	L13C30C	30	27.0	33.0	1	24.0	5	43.5	34.5	+.097	1850
IN6051	L13C33C	33	29.7	36.3	1	26.0	5	47.7	31.5	+.098	1600
IN6052	L13C36C	36	32.4	39.6	1	29.0	5	52.0	29	+.099	1450
IN6053	L13C39C	39	35.1	42.9	1	31.0	5	56.4	26.5	+.100	1350
IN6054	L13C43C	43	38.7	47.3	1	34.0	5	61.9	24	+.101	1200
IN6055	L13C47C	47	42.3	51.7	1	38.0	5	67.8	22.2	+.101	1100
IN6056	L13C51C	51	45.9	56.1	1	41.0	5	73.5	20.4	+.102	1000
IN6057	L13C56C	56	50.4	61.6	1	45.0	5	80.5	18.6	+.103	920
IN6058	L13C62C	62	55.8	68.2	1	48.0	5	89.0	16.9	+.104	820
IN6059	L13C68C	68	61.2	74.8	1	55.0	5	98.0	15.3	+.104	750
IN6060	L13C75C	75	67.5	82.5	1	60.0	5	108	13.9	+.105	670
IN6061	L13C82C	82	73.8	90.2	1	66.0	5	118	12.7	+.105	620
IN6062	L13C91C	91	81.9	100	1	73.0	5	131	11.4	+.106	550
IN6063	L13C100C	100	90.0	110	1	81.0	5	144	10.4	+.106	500
IN6064	L13C110C	110	99.0	121	1	90.0	5	158	9.5	+.107	460
IN6065	L13C120C	120	108	132	1	95.0	5	176	8.5	+.107	420
IN6066	L13C130C	130	117	143	1	105	5	191	7.8	+.107	390
IN6067	L13C150C	150	135	165	1	121	5	223	6.7	+.108	330
IN6068	L13C170C	170	153	187	1	137	5	258	5.8	+.108	310
IN6069	L13C180C	180	162	198	1	145	5	274	5.5	+.108	300
IN6070	L13C190C	190	171	209	1	155	5	292	5.1	+.108	280
IN6071	L13C200C	200	180	220	1	165	5	308	4.9	+.108	250
IN6072	L13C220C	220	198	242	1	175	5	344	4.3	+.108	230

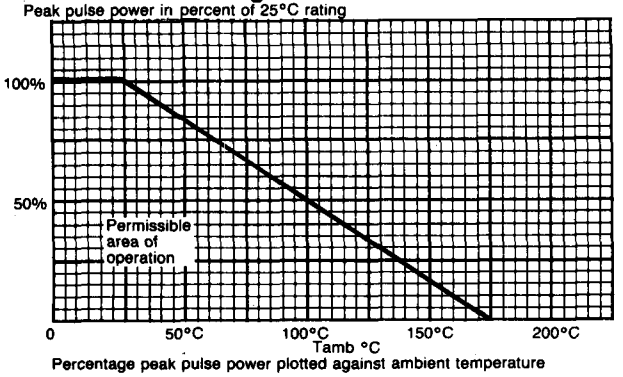
L13 Series

Non-repetitive peak pulse power rating curve



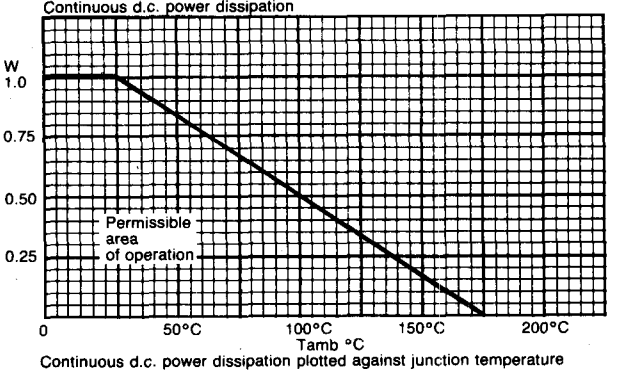
Note: Peak power defined as peak voltage times peak current

Peak Power derating curve



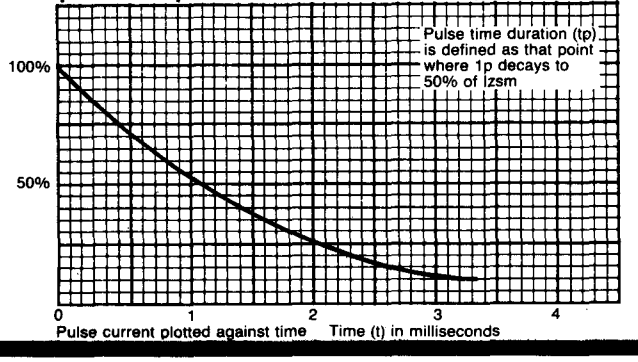
Percentage peak pulse power plotted against ambient temperature

Continuous d.c. power derating curve



Continuous d.c. power dissipation plotted against junction temperature

Exponential pulse waveform



Pulse current plotted against time

Transient Absorption Zener Diode

L13 Series

Mechanical Characteristic

CASE: Hermetically sealed metal and glass DO13
FINISH: All external surfaces are corrosion resistant and leads solderable
IDENTIFICATION: Body marked with Type no., logo and zener symbol
THERMAL RESISTANCE: 100°C/W junction to ambient
WEIGHT: 1.4 grammes approximately

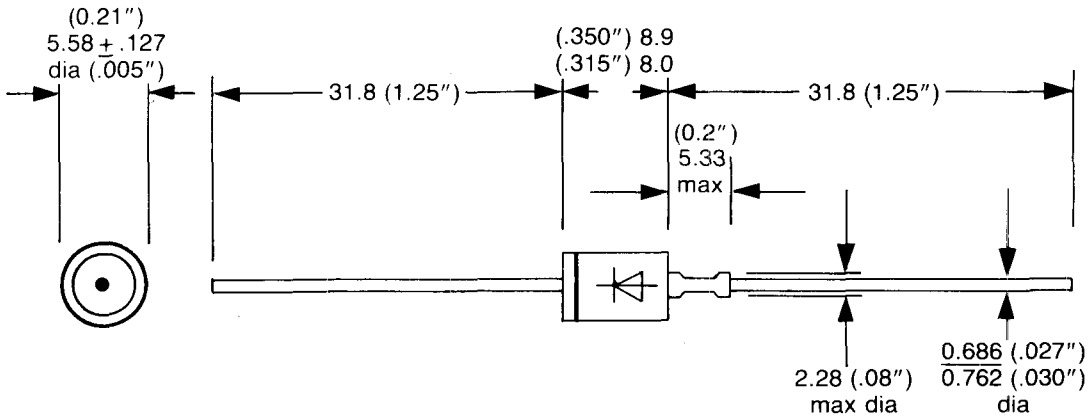
Electrical Characteristics

PULSE REPETITION RATE: 0.01%
V_{BR} measured with pulse = 20mS

Low Capacitance 1.5KW Transient Absorption Zener Diode

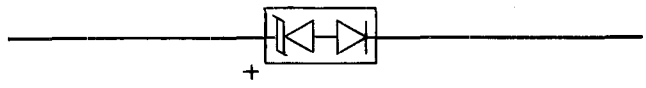
A range of low capacitance unipolar protection diodes in a hermetically sealed metal and glass DO13 package

P_{surge}	1.5KW; 1mS expo
$P_{max\ cont}$	1W
V_R	6.5-170V
T_{on}	$\leqslant 5x10^{-9}S$
$T_{op\ \&\ stg}$	−65 to +175°C



Case Outline dim in mm DO13

Circuit Configuration



L13 Series

Electrical Characteristics at 25°C

Part Number	Reverse Stand-off Voltage V_R Volts	Breakdown Voltage B_V @ I_t Volts			Maxiumum Reverse leakage @ V_R I_R µA	Maximum clamping voltage @ Ipp V_{CL} Volts	Max. Peak pulse current (Fig 3) Ipp Amps	Capacitance @ 0 Volts pF	Working Inverse Blocking Voltage V_{WIB} Volts	Inverse Blocking Leakage Current @ V_{RS} Ipp mA	Peak Inverse Blocking Voltage V_{PIB} Volts
		Min.	Max.	mA							
L13B6v5L	6.5	7.22	7.98	10	1000	11.2	100	100	75	1	100
L13B7v0L	7.0	7.78	8.60	10	500	12.0	100	100	75	1	100
L13B7v5L	7.5	8.33	9.21	10	250	12.9	100	100	75	1	100
L13B8v0L	8.0	8.89	9.83	1	100	13.6	100	100	75	1	100
L13B8v5L	8.5	9.44	10.4	1	50	14.4	100	100	75	1	100
L13B9v0L	9.0	10.0	11.1	1	10	15.4	97	100	75	1	100
L13B10L	10	11.1	12.3	1	5	17.0	88	100	75	1	100
L13B11L	11	12.2	13.5	1	5	18.2	82	100	75	1	100
L13B12L	12	13.3	14.7	1	5	19.9	75	100	75	1	100
L13B13L	13	14.4	15.9	1	5	21.5	70	100	75	1	100
L13B14L	14	15.6	17.2	1	5	23.2	65	100	75	1	100
L13B15L	15	16.7	18.5	1	5	24.4	61	100	75	1	100
L13B16L	16	17.8	19.7	1	5	26.0	57	100	75	1	100
L13B17L	17	18.9	20.9	1	5	27.6	54	100	75	1	100
L13B18L	18	20.0	22.1	1	5	29.2	51	100	75	1	100
L13B20L	20	22.2	24.5	1	5	32.4	46	100	75	1	100
L13B22L	22	24.4	26.9	1	5	35.5	42	100	75	1	100
L13B24L	24	26.7	29.5	1	5	38.9	39	100	75	1	100
L13B26L	26	28.9	31.9	1	5	42.1	36	100	75	1	100
L13B28L	28	31.1	34.4	1	5	45.5	33	100	75	1	100
L13B30L	30	33.3	36.8	1	5	48.4	31	100	75	1	100
L13B33L	33	36.7	40.6	1	5	53.3	28.1	100	75	1	100
L13B36L	36	40.0	44.2	1	5	58.1	25.8	100	75	1	100
L13B40L	40	44.4	49.1	1	5	64.5	23.3	100	75	1	100
L13B43L	43	47.8	52.8	1	5	69.4	21.6	100	150	1	200
L13B45L	45	50.0	55.3	1	5	72.7	20.6	100	150	1	200
L13B48L	48	53.3	58.9	1	5	77.4	19.4	100	150	1	200
L13B51L	51	56.7	62.7	1	5	82.4	18.2	100	150	1	200
L13B54L	54	60.0	66.3	1	5	87.1	17.2	100	150	1	200
L13B58L	58	64.4	71.2	1	5	93.6	16.0	100	150	1	200
L13B60L	60	66.7	73.7	1	5	96.8	15.5	90	150	1	200
L13B64L	64	71.1	78.6	1	5	103.0	14.6	90	150	1	200
L13B70L	70	77.8	86.0	1	5	113	13.3	90	150	1	200
L13B75L	75	83.3	92.1	1	5	121	12.4	90	150	1	200
L13B80L	80	88.7	98.0	1	5	129	11.6	90	150	1	200
L13B90L	90	100	111	1	5	146	10.3	90	300	1	200
L13B100L	100	111	123	1	5	162	9.3	90	300	1	200
L13B110L	110	122	135	1	5	178	8.4	90	300	1	400
L13B120L	120	133	147	1	5	193	7.8	90	300	1	400
L13B130L	130	144	159	1	5	209	7.2	90	300	1	400
L13B150L	150	167	185	1	5	243	6.2	90	300	1	400
L13B160L	160	178	197	1	5	259	5.8	90	300	1	400
L13B170L	170	189	209	1	5	275	5.4	90	300	1	400

Transient Absorption Zener Diode

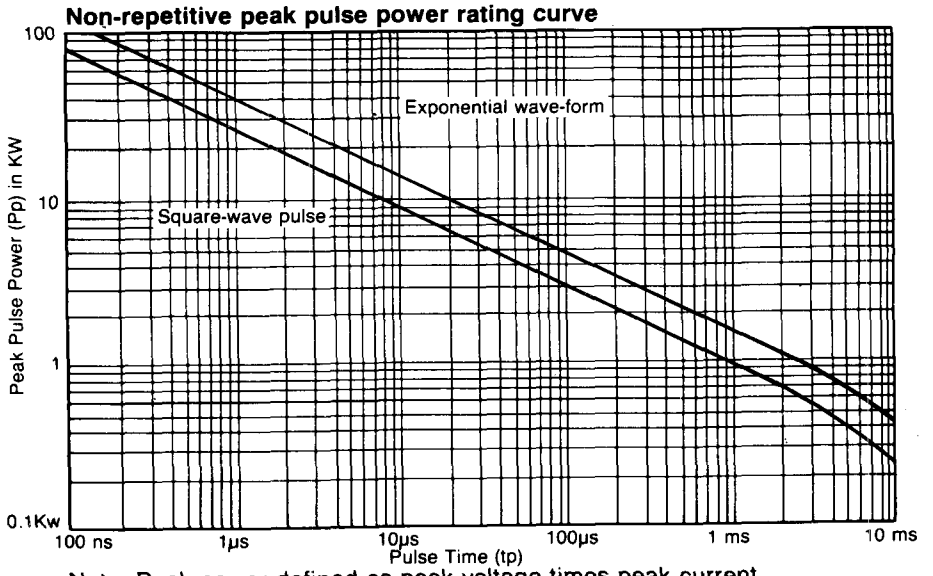
L13 Series

Electrical Characteristics at 25°C

Part Number	Reverse Stand-off Voltage V_R Volts	Breakdown Voltage By @I_t Volts			Maxiumum Reverse leakage @ V_R I_R µA	Maximum clamping voltage @ Ipp V_{CL} Volts	Max. Peak pulse current (Fig 3) Ipp Amps	Capacitance @ 0 Volts pF	Working Inverse Blocking Voltage V_{WIB} Volts	Inverse Blocking Leakage Current @ V_{RS} Ipp mA	Peak Inverse Blocking Voltage V_{PIB} Volts
		Min.	Max.	mA							
L13C7v0L	7.0	7.78	9.51	10	500	13.3	100	100	75	1	100
L13C7v5L	7.5	8.33	10.2	10	250	14.3	100	100	75	1	100
L13C8v0L	8.0	8.89	10.9	1	100	15.0	100	100	75	1	100
L13C8v5L	8.5	9.44	11.5	1	50	15.9	94	100	75	1	100
L13C9v0L	9.0	10.0	12.2	1	10	16.9	89	100	75	1	100
L13C10L	10	11.1	13.6	1	5	18.8	80	100	75	1	100
L13C11L	11	12.2	14.9	1	5	20.1	74	100	75	1	100
L13C12L	12	13.3	16.3	1	5	22.0	68	100	75	1	100
L13C13L	13	14.4	17.6	1	5	23.8	63	100	75	1	100
L13C14L	14	15.6	19.1	1	5	25.8	58	100	75	1	100
L13C15L	15	16.7	20.4	1	5	26.9	58	100	75	1	100
L13C16L	16	17.8	21.8	1	5	28.8	52	100	75	1	100
L13C17L	17	18.9	23.1	1	5	30.5	49	100	75	1	100
L13C18L	18	20.0	24.4	1	5	32.2	46	100	75	1	100
L13C20L	20	22.2	27.1	1	5	35.8	42	100	75	1	100
L13C22L	22	24.4	29.8	1	5	39.4	38	100	75	1	100
L13C24L	24	26.7	32.6	1	5	43.0	35	100	75	1	100
L13C26L	26	28.9	35.3	1	5	46.6	32	100	75	1	100
L13C28L	28	31.1	38.0	1	5	50.1	30	100	75	1	100
L13C30L	30	33.3	40.7	1	5	53.5	28	100	75	1	100
L13C33L	33	36.7	44.9	1	5	59.0	25.4	100	75	1	100
L13C36L	36	40.0	48.9	1	5	64.3	23.3	100	75	1	100
L13C40L	40	44.4	54.3	1	5	71.4	21.0	100	75	1	100
L13C43L	43	47.8	58.4	1	5	76.7	19.5	100	150	1	200
L13C45L	45	50.0	61.1	1	5	80.3	18.7	100	150	1	200
L13C48L	48	53.3	65.1	1	5	85.5	17.5	100	150	1	200
L13C51L	51	56.7	69.3	1	5	91.1	16.5	100	150	1	200
L13C54L	54	60.0	73.3	1	5	96.3	15.6	100	150	1	200
L13C58L	58	64.4	78.7	1	5	103.0	14.6	100	150	1	200
L13C60L	60	66.7	81.5	1	5	107.0	14.0	90	150	1	200
L13C64L	64	71.1	86.9	1	5	114.0	13.2	90	150	1	200
L13C70L	70	77.8	95.1	1	5	125	12.0	90	150	1	200
L13C75L	75	83.3	102.0	1	5	134	11.2	90	150	1	200
L13C80L	80	88.7	108	1	5	142	10.6	90	150	1	200
L13C90L	90	100	122	1	5	160	9.4	90	300	1	200
L13C100L	100	111	136	1	5	179	8.4	90	300	1	200
L13C110L	110	122	149	1	5	196	7.7	90	300	1	400
L13C120L	120	133	163	1	5	214	7.0	90	300	1	400
L13C130L	130	144	176	1	5	213	6.5	90	300	1	400
L13C150L	150	167	204	1	5	268	5.6	90	300	1	400
L13C160L	160	178	218	1	5	287	5.2	90	300	1	400
L13C170L	170	189	231	1	5	304	4.9	90	300	1	400

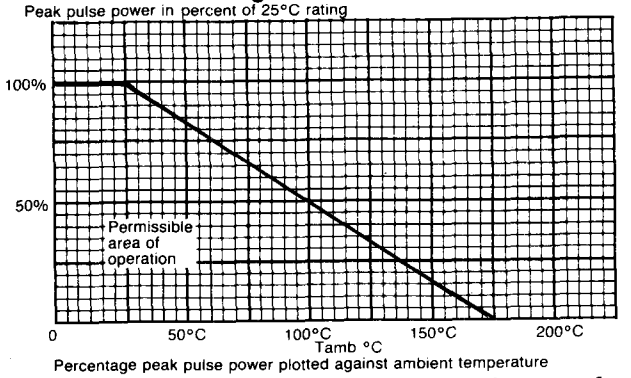
L13 Series

Non-repetitive peak pulse power rating curve



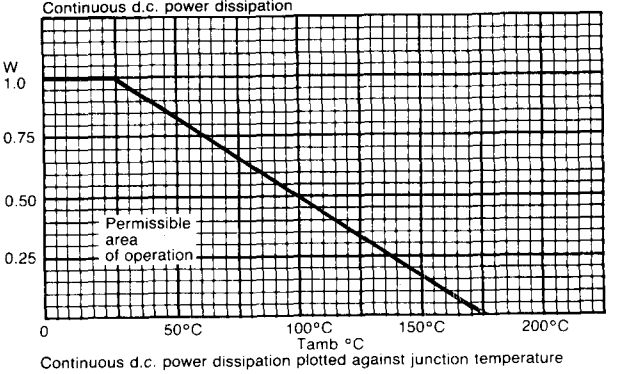
Note: Peak power defined as peak voltage times peak current

Peak Power derating curve



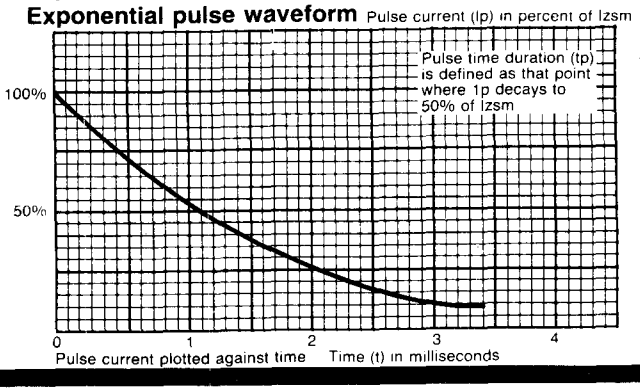
Percentage peak pulse power plotted against ambient temperature

Continuous d.c. power derating curve



Continuous d.c. power dissipation plotted against junction temperature

Exponential pulse waveform



Pulse current plotted against time Time (t) in milliseconds

Transient Absorption Zener Diodes

L13 Series

Mechanical Characteristics

CASE: Hermetically sealed metal and glass DO13
FINISH: All external surfaces are corrosion resistant and leads solderable
POLARITY: Zener cathode connected to case
IDENTIFICATION: Body marked with Type no., logo and zener symbol
THERMAL RESISTANCE: 100°C/W junction to ambient
WEIGHT: 1.4 grammes approximately

Electrical Characteristics

PULSE REPETITION RATE: 0.01%
V_{BR} measured with pulse $\leq$ 20mS