

1500W Bi-directional TVS Diode in DO-13 Package

Qualified per MIL-PRF-19500/507

DESCRIPTION:

This DO-13 hermetically sealed TVS diode series is military qualified per MIL-PRF-19500/507 and is targeted for space, commercial and military aircraft, military vehicles, shipboard markets and all high reliability applications.

FEATURES / BENEFITS:

- ✓ Hermetic sealed DO-13 package
- ✓ Parts are hot solder dipped
- ✓ JAN/ JANTX/ JANTXV available per MIL-PRF-19500/507
- ✓ VBR at $\pm 5\%$ tolerance

MAXIMUM RATINGS

- ✓ Operating & Storage Temperature: -65°C to $+175^{\circ}\text{C}$
- ✓ Junction Temperature: -65°C to $+175^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

SERIES TYPE	MIN BREAKDOWN VOLTAGE $V_{(BR)}$ @ $I_{(BR)}$		WORKING PEAK REVERSE VOLTAGE $VRWM$	MAXIMUM STANDBY CURRENT I_D	MAX. CLAMP. VOLTAGE VC @ I_{PP} $t_p = 1ms$	MAX. PEAK PULSE CURRENT $t_p = 1ms$, $t_r = 10\mu s$ I_{PP}	MAX. TEMP. COEFFICIENT
	Vdc	mA dc					
1500W	Vdc	mA dc	Vdc	$\mu\text{A dc}$	V(pk)	A(pk)	% / $^{\circ}\text{C}$
1N6036A	7.13	10	6.0	1000	11.3	132.0	0.061
1N6037A	7.79	10	7.0	500	12.1	124.0	0.065
1N6938A	8.65	10	7.5	200	13.4	112.0	0.068
1N6039A	9.50	1	8.5	50	14.5	103.0	0.073
1N6040A	10.50	1	9.0	10	15.6	96.0	0.075
1N6041A	11.40	1	10.0	5	16.7	90.0	0.078
1N6042A	12.40	1	11.0	5	18.2	82.0	0.081
1N6043A	14.30	1	12.0	5	21.2	71.0	0.084
1N6044A	15.20	1	13.0	5	22.5	67.0	0.086
1N6045A	17.10	1	15.0	5	25.2	59.5	0.088
1N6046A	19.00	1	17.0	5	27.7	54.0	0.090
1N6047A	20.90	1	18.0	5	30.6	49.0	0.092
1N6048A	22.80	1	20.0	5	33.2	45.0	0.094
1N6049A	25.70	1	22.0	5	37.5	40.0	0.096
1N6050A	28.50	1	25.0	5	41.4	36.0	0.097
1N6051A	31.40	1	28.0	5	45.7	33.0	0.098
1N6052A	34.20	1	30.0	5	49.9	30.0	0.098

SENSITRON SEMICONDUCTOR

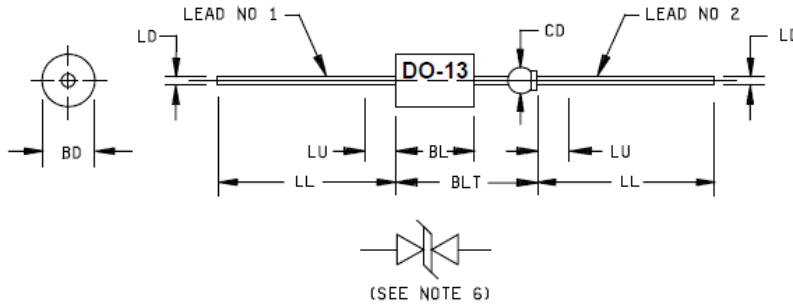
1N6036A thru 1N6067A

1500W Transient Voltage
Suppressor Diodes

TECHNICAL DATA DATA SHEET 5165 REV. A.3

SERIES TYPE	MIN BREAKDOWN VOLTAGE $V_{(BR)}$ @ $I_{(BR)}$		WORKING PEAK REVERSE VOLTAGE V_{RWM}	MAXIMUM STANDBY CURRENT I_D	MAX. CLAMP. VOLTAGE VC @ I_{PP} $t_p = 1ms$	MAX. PEAK PULSE CURRENT $t_p = 1ms,$ $t_r = 10\mu s$ I_{PP}	MAX. TEMP. COEFFICIENT
	Vdc	mA dc					
1N6053A	37.10	1	33.0	5	53.9	28.0	0.100
1N6054A	40.90	1	36.0	5	59.3	25.3	0.101
1N6055A	44.70	1	40.0	5	64.8	23.2	0.101
1N6056A	48.50	1	43.0	5	70.1	21.4	0.102
1N6057A	53.20	1	47.0	5	77.0	19.5	0.103
1N6058A	58.90	1	53.0	5	85.0	17.7	0.104
1N6059A	64.60	1	58.0	5	92.0	16.3	0.104
1N6060A	71.30	1	64.0	5	103.0	14.6	0.105
1N6061A	77.90	1	70.0	5	113.0	13.3	0.105
1N6062A	86.50	1	75.0	5	125.0	12.0	0.106
1N6063A	95.00	1	82.0	5	137.0	11.0	0.106
1N6064A	105.00	1	94.0	5	152.0	9.9	0.107
1N6065A	114.00	1	100.0	5	168.0	8.9	0.107
1N6066A	124.00	1	110.0	5	182.0	8.2	0.107
1N6067A	143.00	1	128.0	5	213.0	7.0	0.108

PACKAGE DIMENSIONS (inches/mm)



Symbol	Dimensions				Notes 1, 2
	Inches		Millimeters		
	Min	Max	Min	Max	
BD	.215	.235	5.46	5.97	
BL	.293	.357	7.44	9.07	3
BLT		.570		14.48	
CD	.045	.100	1.14	2.54	5
LD	.025	.035	0.64	0.89	
LL	1.000	1.625	25.40	41.28	
LU		.188		4.78	4

PKG: DO-13

NOTES:

- Dimensions are in inches.
- Millimeter equivalents are given for general information only.
- The major diameter is essentially constant along its length.
- Within this zone, diameter may vary to allow for lead finishes and irregularities.
- Dimension to allow for pinch or seal deformation anywhere along tubulation.
- Symbol for bidirectional transient suppressor.
- Lead 1 shall be electrically connected to the case.
- In accordance with ASME Y14.5M, diameters are equivalent to ϕx symbology.

**TECHNICAL DATA
DATA SHEET 5165 REV. A.3****PART ORDERING INFORMATION**

The following part numbers can be screened and tested to the military screening flow. The parts are marked in accordance with the testing performed, example:

Sensitron Screening Level	Part Number-- Leaded Package <i>(example for 1N6041A)</i>
1N	1N6041A
JAN	JAN1N6041A
JANTX	JANTX1N6041A
JANTXV	JANTXV1N6041A

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