International Semiconductor, Inc.

1.5 kW

TRANSIENT VOLTAGE SUPPRESSORS

8.2 to 200 VOLTS

1500 WATT PEAK POWER 5.0 WATT STEADY STATE

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25 C ambient unless otherwise specified

RATING	SYMBOL	VALUE	UNITS
Peak Power Dissipation at Ta=25 C, Tp=1 ms (Note 1)	Ppk	Minimum 600	Watts
Steady State Power Dissipation at Tl=75 C Lead Lengths .375", (9.5 mm) (Note 2)	PD	5.0	Watts
Peak Forward Surge Current, 8.3 ms, Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 3)	IFSM	200	Amps
Operating and Storage Temperature Range	Tj,Tstg	-65 to +175	C

NOTES:

1. Non-repetitive current pulse, per Fig.3 and derated above Ta = 25 C per Fig. 2
2. Mounted on Copper Leaf area of 0.79 sq in (20 sq mm)
3. 8.3 ms half sine-wave, duty cycle = 4 pulses per minute maximum

FEATURES

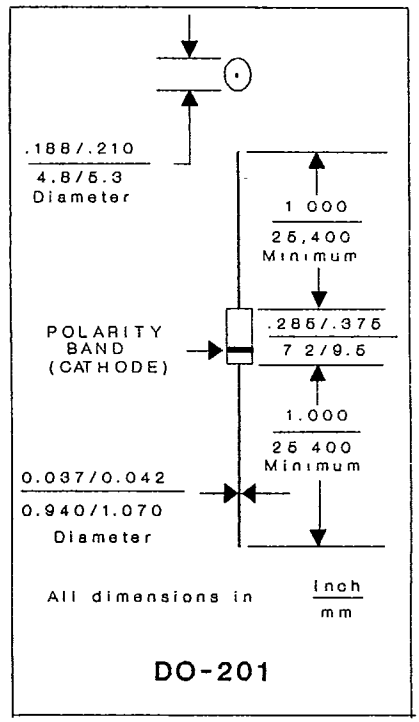
Passivated junction in molded plastic package
1500 Watt surge capability at 1 millisecond
Excellent clamping capability
Low zener impedance
Fast responce time: typically less than 1.0 ps from 0 volts to BV minimum
Typical Ir less than 1 ua above 10 volts
High temperature soldering guaranteed 300 C for 10 seconds with .375" (9.5 mm) lead length, and 5 lbs (2.3 kg) tension

DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional Requirements change part number from 15U8 thru 15U200 to 15B8 thru 15B200
Electrical characteristics apply in both directions

NOTES TO CHARACTERISTICS AND SPECIFICATIONS:

1. Vbr measured after It applied for 300 us. It = Square Wave Pulse or equivalent.
2. Surge current Waveform per Fig.3 and derated per Fig. 2.
3. Vf = 3.5 V max, If = 100 amps for all types per 1/2 Square or Equivqlent Sine Wave PW = 8.3 ms, Duty Cycle - 4 Pulses per Minute Maximum.



DO-201

MECHANICAL DATA

Case: Molded plastic over passivated Junction

Terminals: Axial leads, solderable per MIL-STD-202, Method 208

Polarity: Color band denotes cathode (Except Bipolar)

Mounting Position: Any

Weight: 0.045 ounce (1.2 grams)

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JEDEC TYPE NUMBER	INTERNATIONAL PART NUMBER	Breakdown Voltage Vbr (Volts) Min	(Note 1) Max	at It (ma)	Working Peak Reverse Voltage VRWM (Volts)	Maximum Reverse Leakage at VRWM Ir (ua)	Maximum Reverse Surge Current IRSM (Note 2) (Amps)	Maximum Reverse Voltage at IRSM (Clamping Voltage) VRSM (Volts)	Maximum Temperature Coefficient of Vbr (%/C) VRSM (Volts)
1N6269	15U8	7.38	9.02	10	6.63	200	120	12.5	0.057
1N6269A	15U8A	7.79	8.0	10	7.02	200	124	12.1	0.065
1N6270	15U9	8.19	10.0	1.0	7.37	50	109	13.8	0.068
1N6270A	15U9A	8.65	9.55	1.0	7.78	50	112	13.4	0.068
1N6271	15U10	9.00	11.0	1.0	8.10	10	100	15.0	0.073
1N6271A	15U10A	9.50	10.5	1.0	8.55	10	103	14.5	0.073
1N6272	15U11	9.90	12.1	1.0	8.92	5.0	93.0	16.2	0.075
1N6272A	15U11A	10.5	11.6	1.0	9.40	5.0	96.0	15.6	0.075
1N6273	15U12	10.8	13.2	1.0	9.72	5.0	87.0	17.3	0.078
1N6273A	15U12A	11.4	12.6	1.0	10.2	5.0	90.0	16.7	0.078
1N6274	15U13	11.7	14.3	1.0	10.5	5.0	79.0	19.0	0.081
1N6274A	15U13A	12.4	13.7	1.0	11.1	5.0	82.0	18.2	0.081
1N6275	15U15	13.5	16.5	1.0	12.1	5.0	68.0	22.0	0.084
1N6275A	15U15A	14.3	15.8	1.0	12.8	5.0	71.0	21.2	0.084
1N6276	15U16	14.4	17.6	1.0	12.9	5.0	64.0	23.5	0.086
1N6276A	15U16A	15.2	16.8	1.0	13.6	5.0	67.0	22.5	0.086
1N6277	15U18	16.2	19.8	1.0	14.5	5.0	56.5	26.5	0.088
1N6277A	15U18A	17.1	18.9	1.0	15.3	5.0	59.5	26.2	0.088
1N6278	15U20	18.0	22.0	1.0	16.2	5.0	51.5	29.1	0.090
1N6278A	15U20A	19.0	21.0	1.0	17.1	5.0	54.0	27.7	0.090
1N6279	15U22	19.8	24.2	1.0	17.8	5.0	47.0	31.9	0.092
1N6279A	15U22A	20.9	23.1	1.0	18.8	5.0	49.0	30.6	0.092
1N6280	15U24	21.6	26.4	1.0	19.4	5.0	43.0	34.7	0.094
1N6280A	15U24A	22.8	25.2	1.0	20.5	5.0	45.0	33.2	0.094
1N6281	15U27	24.3	29.7	1.0	21.8	5.0	38.5	39.1	0.096
1N6281A	15U27A	25.7	28.4	1.0	23.1	5.0	40.0	37.5	0.096
1N6282	15U30	27.0	33.0	1.0	24.3	5.0	34.5	43.5	0.097
1N6282A	15U30A	28.5	31.5	1.0	25.6	5.0	36.0	41.4	0.097
1N6283	15U33	29.7	36.3	1.0	26.8	5.0	31.5	47.7	0.098
1N6283A	15U33A	31.4	34.7	1.0	28.2	5.0	33.0	45.7	0.098
1N6284	15U36	32.4	39.6	1.0	29.1	5.0	29.0	52.0	0.099
1N6284A	15U36A	34.2	37.8	1.0	30.8	5.0	30.0	49.9	0.099
1N6285	15U39	35.1	42.9	1.0	31.6	5.0	26.5	56.4	0.100
1N6285A	15U39A	37.1	41.0	1.0	33.3	5.0	28.0	53.9	0.100
1N6286	15U43	38.7	47.3	1.0	34.8	5.0	24.0	61.9	0.101
1N6286A	15U43A	40.9	45.2	1.0	36.8	5.0	25.3	59.3	0.101
1N6287	15U47	42.3	51.7	1.0	36.1	5.0	22.2	67.8	0.101
1N6287A	15U47A	44.7	49.4	1.0	40.2	5.0	23.2	64.8	0.101
1N6288	15U51	45.9	56.1	1.0	41.3	5.0	20.4	73.5	0.102
1N6288A	15U51A	48.5	53.6	1.0	43.6	5.0	21.4	70.1	0.102

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1N6289	15U56	50.4	61.8	1.0	45.4	5.0	18.6	80.5	0.103
1N6289A	15U56A	53.2	58.8	1.0	47.8	5.0	19.5	77.0	0.103
1N6290	15U62	55.8	68.2	1.0	50.2	5.0	16.9	89.0	0.104
1N6290A	15U62A	58.9	65.1	1.0	53.0	5.0	17.7	85.0	0.104
1N6291	15U68	61.2	74.8	1.0	55.1	5.0	15.3	98.0	0.104
1N6291A	15U68A	64.6	71.4	1.0	58.1	5.0	16.3	92.0	0.105
1N6292	15U75	67.5	82.5	1.0	60.7	5.0	13.9	108.9	0.105
1N6292A	15U75A	71.3	78.8	1.0	64.1	5.0	14.6	103.9	0.105
1N6293	15U82	73.8	90.2	1.0	66.4	5.0	12.7	118.0	0.105
1N6293A	15U82A	77.9	86.1	1.0	70.1	5.0	13.3	113.0	0.106
1N6294	15U91	81.9	100.0	1.0	73.7	5.0	11.4	131.0	0.106
1N6294A	15U91A	86.5	95.5	1.0	77.8	5.0	12.0	125.0	0.106
1N6295	15U100	90.0	110.0	1.0	81.0	5.0	10.4	144.0	0.106
1N6295A	15U100A	95.0	105.0	1.0	85.5	5.0	11.0	137.0	0.106
1N6296	15U110	99.0	121.0	1.0	89.2	5.0	9.5	158.0	0.107
1N6296A	15U110A	106.0	116.0	1.0	94.0	5.0	9.9	152.0	0.107
1N6297	15U120	108.0	132.0	1.0	97.2	5.0	8.7	173.0	0.107
1N6297A	15U120A	114.0	126.0	1.0	102.0	5.0	9.1	165.0	0.107
1N6298	15U130	117.0	143.0	1.0	106.0	5.0	8.0	187.0	0.107
1N6298A	15U130A	124.0	137.0	1.0	111.0	5.0	8.4	179.0	0.107
1N6299	15U150	136.0	165.0	1.0	121.0	5.0	7.0	215.0	0.108
1N6299A	15U150A	143.0	158.0	1.0	128.0	5.0	7.2	207.0	0.108
1N6300	15U160	144.0	176.0	1.0	130.0	5.0	6.5	230.0	0.108
1N6300A	15U160A	152.0	168.0	1.0	136.0	5.0	6.8	219.0	0.108
1N6301	15U170	153.0	167.0	1.0	138.0	5.0	6.2	244.0	0.108
1N6301A	15U170A	162.0	179.0	1.0	145.0	5.0	6.4	234.0	0.108
1N6302	15U180	162.0	198.0	1.0	146.0	5.0	5.8	258.0	0.108
1N6302A	15U180A	171.0	189.0	1.0	154.0	5.0	6.1	246.0	0.108
1N6303	15U200	180.0	220.0	1.0	162.0	5.0	5.2	287.0	0.108
1N6303A	15U200A	190.0	210.0	1.0	171.0	5.0	5.5	274.0	0.108

INTERNATIONAL SEMICONDUCTOR, INC.

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FIGURE 1 – PULSE RATING CURVE

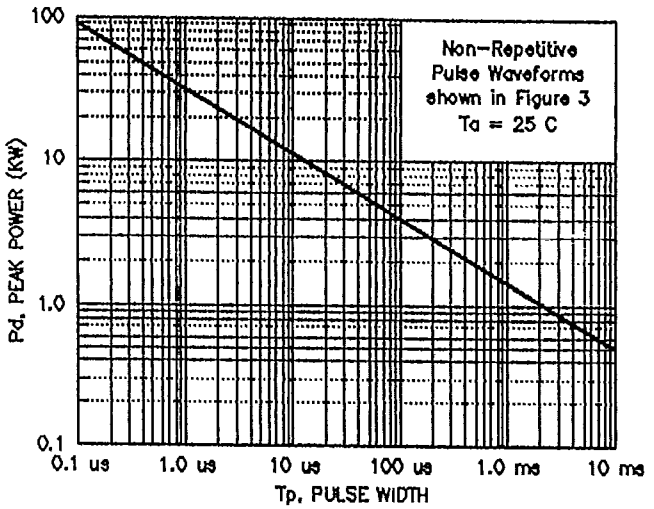

FIGURE 2 – PULSE DERATING CURVE

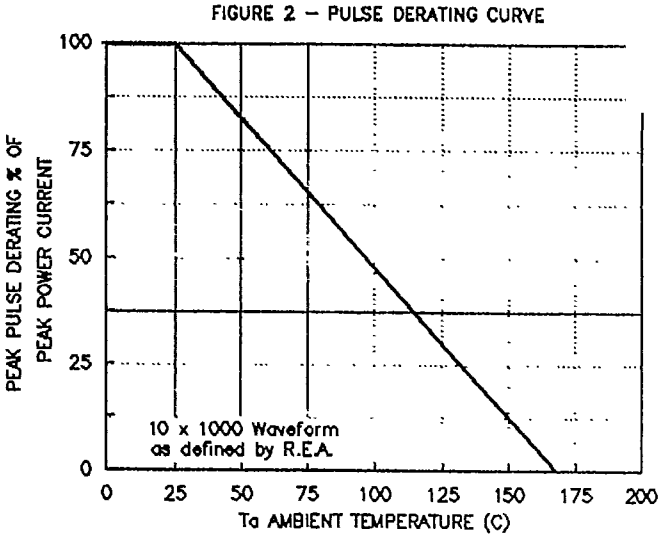

FIGURE 3 – PULSE WAVEFORM

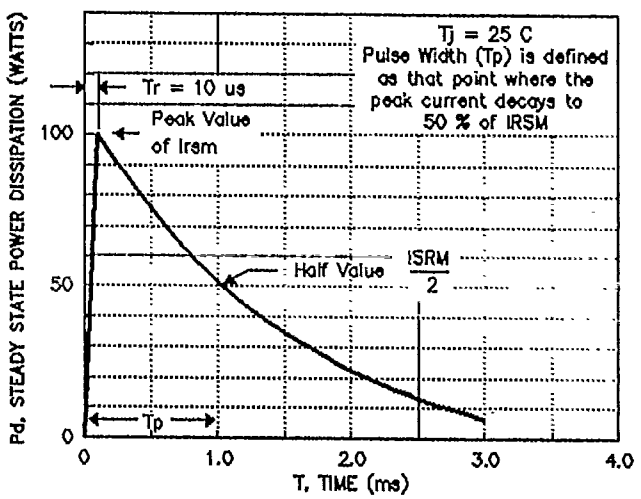

FIGURE 4 – TYPICAL JUNCTION CAPACITANCE

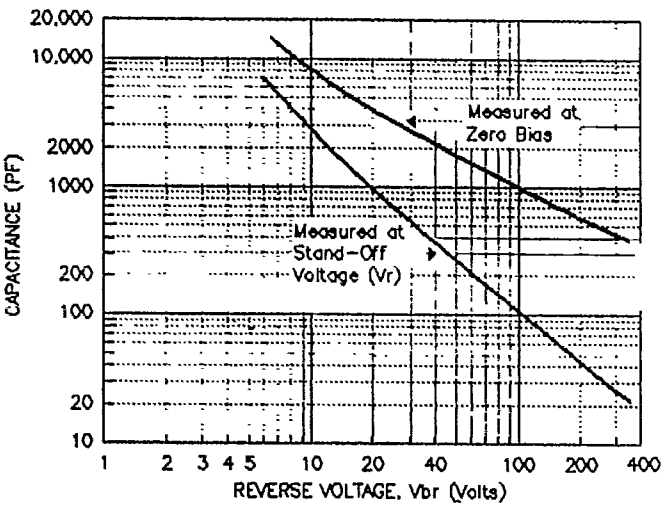

FIGURE 5 – STEADY STATE POWER DERATING

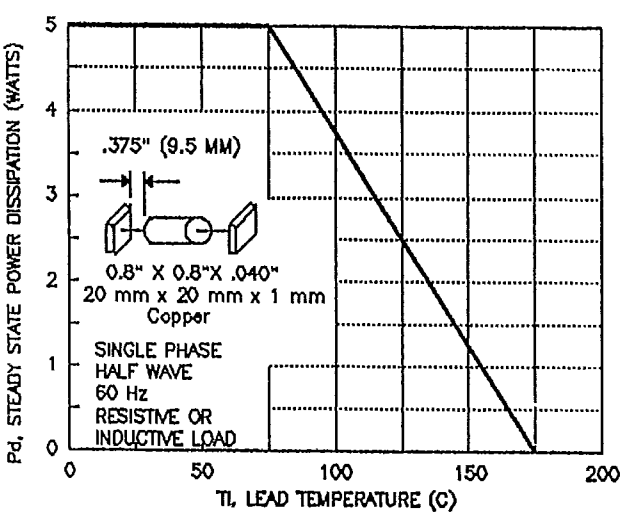

FIGURE 6 – MAXIMUM NON-REPETITIVE
SURGE CURRENT