



1N6267 - 1N6303A

TRANSIENT VOLTAGE SUPPRESSOR

V_{BR} : 6.8 - 200 Volts

P_{PK} : 1500 Watts

FEATURES :

- * 1500W surge capability at 1ms
- * Excellent clamping capability
- * Low zener impedance
- * Fast response time : typically less than 1.0 ps from 0 volt to V_{BR(min.)}
- * Typical I_R less than 1μA above 10V

MECHANICAL DATA

- * Case : DO-201AD Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity : Color band denotes cathode end except Bipolar.
- * Mounting position : Any
- * Weight : 1.21 grams

DEVICES FOR BIPOLAR APPLICATIONS

For bi-directional use C or CA Suffix
Electrical characteristics apply in both directions

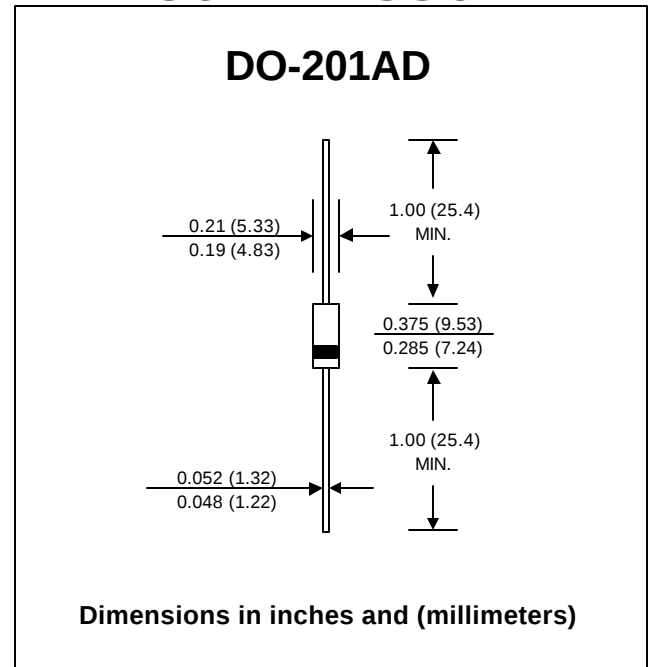
MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified.

Rating	Symbol	Value	Unit
Peak Power Dissipation at Ta = 25 °C, Tp=1ms (Note1)	P _{PK}	1500	Watts
Steady State Power Dissipation at TL = 75 °C Lead Lengths 0.375", (9.5mm) (Note 2)	P _D	5.0	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 3)	I _{FSM}	200	Amps.
Operating and Storage Temperature Range	T _J , T _{STG}	- 65 to + 175	°C

Note :

- (1) Non-repetitive Current pulse, per Fig. 5 and derated above Ta = 25 °C per Fig. 1
- (2) Mounted on Copper Lead area of 1.57 in² (40mm²).
- (3) 8.3 ms single half sine-wave, duty cycle = 4 pulses per minutes maximum.





Certificate Number: QM561

Certificate Number: 517276

ELECTRICAL CHARACTERISTICS

Rating at = 25 °C ambient temperature unless otherwise specified

TYPE	Breakdown Voltage @ It (Note 1)		Working Peak Reverse Voltage	Maximum Reverse Leakage @ VRWM	Maximum Reverse Current	Maximum Clamping Voltage @ IRSM	Maximum Temperature Co-efficient of VBR
	VBR (V)	It					
Unidirectional	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)
Axial Lead	Min.	Max.	(mA)	(V)	(μA)	(A)	(V)
							(% / °C)
1N6267	6.12	7.48	10	5.50	1000	139	10.8
1N6267A	6.45	7.14	10	5.80	1000	143	10.5
1N6268	6.75	8.25	10	6.05	500	128	11.7
1N6268A	7.13	7.88	10	6.40	500	132	11.3
1N6269	7.38	9.02	10	6.63	200	120	12.5
1N6269A	7.79	8.61	10	7.02	200	124	12.1
1N6270	8.19	10.0	1.0	7.37	50	109	13.8
1N6270A	8.65	9.55	1.0	7.78	50	112	13.4
1N6271	9.00	11.0	1.0	8.10	10	100	15.0
1N6271A	9.50	10.5	1.0	8.55	10	103	14.5
1N6272	9.90	12.1	1.0	8.92	5.0	93.0	16.2
1N6272A	10.5	11.6	1.0	9.40	5.0	96.0	15.6
1N6273	10.8	13.2	1.0	9.72	5.0	87.0	17.3
1N6273A	11.4	12.6	1.0	10.2	5.0	90.0	16.7
1N6274	11.7	14.3	1.0	10.5	5.0	79.0	19.0
1N6274A	12.4	13.7	1.0	11.1	5.0	82.0	18.2
1N6275	13.5	16.5	1.0	12.1	5.0	68.0	22.0
1N6275A	14.3	15.8	1.0	12.8	5.0	71.0	21.2
1N6276	14.4	17.6	1.0	12.9	5.0	64.0	23.5
1N6276A	15.2	16.8	1.0	13.6	5.0	67.0	22.5
1N6277	16.2	19.8	1.0	14.5	5.0	56.5	26.5
1N6277A	17.1	18.9	1.0	15.3	5.0	59.5	25.2
1N6278	18.0	22.0	1.0	16.2	5.0	51.5	29.1
1N6278A	19.0	21.0	1.0	17.1	5.0	54.0	27.7
1N6279	19.8	24.2	1.0	17.8	5.0	47.0	31.9
1N6279A	20.9	23.1	1.0	18.8	5.0	49.0	30.6
1N6280	21.6	26.4	1.0	19.4	5.0	43.0	34.7
1N6280A	22.8	25.2	1.0	20.5	5.0	45.0	33.2
1N6281	24.3	29.7	1.0	21.8	5.0	38.5	39.1
1N6281A	25.7	28.4	1.0	23.1	5.0	40.0	37.5
1N6282	27.0	33.0	1.0	24.3	5.0	34.5	43.5
1N6282A	28.5	31.5	1.0	25.6	5.0	36.0	41.4
1N6283	29.7	36.3	1.0	26.8	5.0	31.5	47.7
1N6283A	31.4	34.7	1.0	28.2	5.0	33.0	45.7
1N6284	32.4	39.6	1.0	29.1	5.0	29.0	52.0
1N6284A	34.2	37.8	1.0	30.8	5.0	30.0	49.9
1N6285	35.1	42.9	1.0	31.6	5.0	26.5	56.4
1N6285A	37.1	41.0	1.0	33.3	5.0	28.0	53.9
1N6286	38.7	47.3	1.0	34.8	5.0	24.0	61.9
1N6286A	40.9	45.2	1.0	36.8	5.0	25.3	59.3
1N6287	42.3	51.7	1.0	38.1	5.0	22.2	67.8
1N6287A	44.7	49.4	1.0	40.2	5.0	23.2	64.8
1N6288	45.9	56.1	1.0	41.3	5.0	20.4	73.5
1N6288A	48.5	53.6	1.0	43.6	5.0	21.4	70.1
1N6289	50.4	61.6	1.0	45.4	5.0	18.6	80.5
1N6289A	53.2	58.8	1.0	47.8	5.0	19.5	77.0
1N6290	55.8	68.2	1.0	50.2	5.0	16.9	89.0

ELECTRICAL CHARACTERISTICS

Rating at = 25 °C ambient temperature unless otherwise specified

TYPE	Breakdown Voltage @ I_t (Note 1)			Working Peak Reverse Voltage	Maximum Reverse Leakage @ V_{RWM}	Maximum Reverse Current	Maximum Clamping Voltage @ I_{RSM}	Maximum Temperature Co-efficient of V_{BR}
	V_{BR} (V)		I_t	V_{RWM}	I_R	I_{RSM}	V_{RSM}	of V_{BR} (% / °C)
	Min.	Max.	(mA)	(V)	(μ A)	(A)	(V)	
1N6290A	58.9	65.1	1.0	53.0	5.0	17.7	85.0	0.104
1N6291	61.2	74.8	1.0	55.1	5.0	15.3	98.0	0.104
1N6291A	64.6	71.4	1.0	58.1	5.0	16.3	92.0	0.104
1N6292	67.5	82.5	1.0	60.7	5.0	13.9	108	0.105
1N6292A	71.3	78.8	1.0	64.1	5.0	14.6	103	0.105
1N6293	73.8	90.2	1.0	66.4	5.0	12.7	118	0.105
1N6293A	77.9	86.1	1.0	70.1	5.0	13.3	113	0.105
1N6294	81.9	100	1.0	73.7	5.0	11.4	131	0.106
1N6294A	86.5	95.5	1.0	77.8	5.0	12.0	125	0.106
1N6295	90.0	110	1.0	81.0	5.0	10.4	144	0.106
1N6295A	95.0	105	1.0	85.5	5.0	11.0	137	0.106
1N6296	99.0	121	1.0	89.2	5.0	9.5	158	0.107
1N6296A	105	116	1.0	94.0	5.0	9.9	152	0.107
1N6297	108	132	1.0	97.2	5.0	8.7	173	0.107
1N6297A	114	126	1.0	102	5.0	9.1	165	0.107
1N6298	117	143	1.0	105	5.0	8.0	187	0.107
1N6298A	124	137	1.0	111	5.0	8.4	179	0.107
1N6299	135	165	1.0	121	5.0	7.0	215	0.108
1N6299A	143	158	1.0	128	5.0	7.2	207	0.108
1N6300	144	176	1.0	130	5.0	6.5	230	0.108
1N6300A	152	168	1.0	136	5.0	6.8	219	0.108
1N6301	153	187	1.0	138	5.0	6.2	244	0.108
1N6301A	162	179	1.0	145	5.0	6.4	234	0.108
1N6302	162	198	1.0	146	5.0	5.8	258	0.108
1N6302A	171	189	1.0	154	5.0	6.1	246	0.108
1N6303	180	220	1.0	162	5.0	5.2	287	0.108
1N6303A	190	210	1.0	171	5.0	5.5	274	0.108

Note:

- (1) V_{BR} measured after I_t applied for 300 μ s.. I_t = square wave pulse or equivalent.
- (2) V_F = 3.5 V_{max} .. I_F = 100 Amps. (6.8 Volts thru 91 Volts)
 V_F = 5.0 V_{max} .. I_F = 100 Amps. (100 Volts thru 200 Volts) per 1/2 square or equivalent sine wave.
 PW = 8.3 ms, duty cycle = 4 pulses per minute maximum.

RATING AND CHARACTERISTIC CURVES (1N6267 - 1N6303A)

FIG.1 - PULSE DERATING CURVE

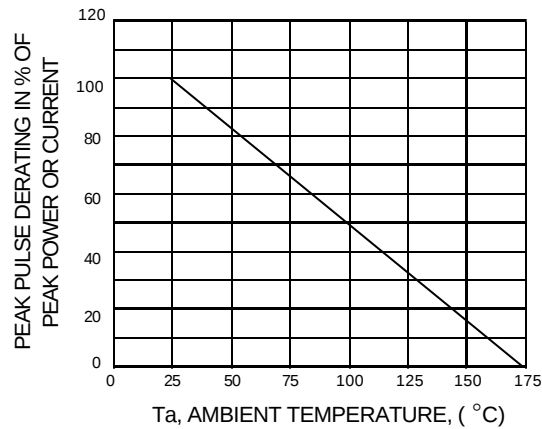


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

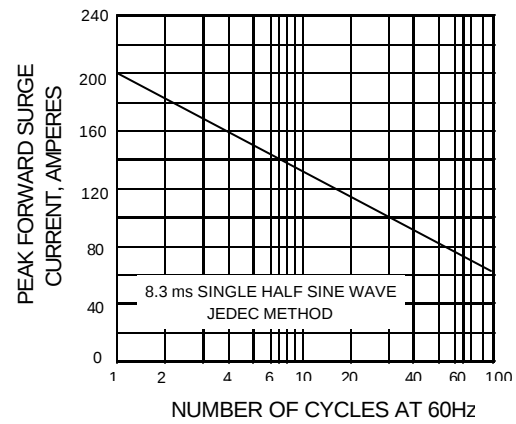


FIG.3 - STEADY STATE POWER DERATING

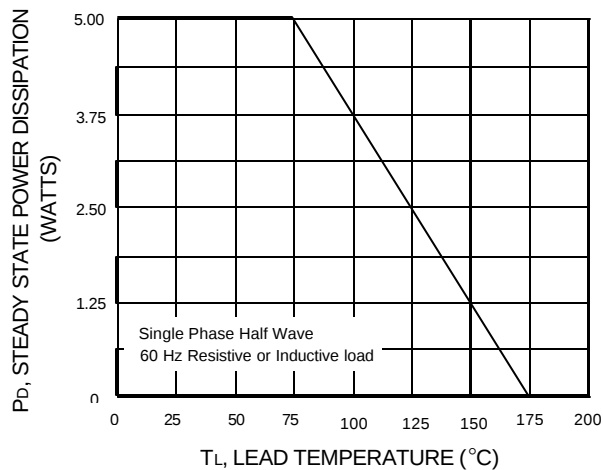


FIG.4 - PULSE RATING CURVE

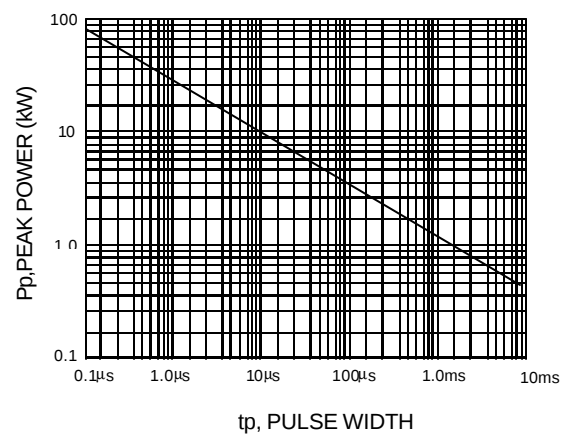


FIG.5 - PULSE WAVEFORM

