

# 1N6267A-1N6303CA

**V<sub>BR</sub> : 6.8 - 200 Volts**  
**PPK : 1500 Watts**

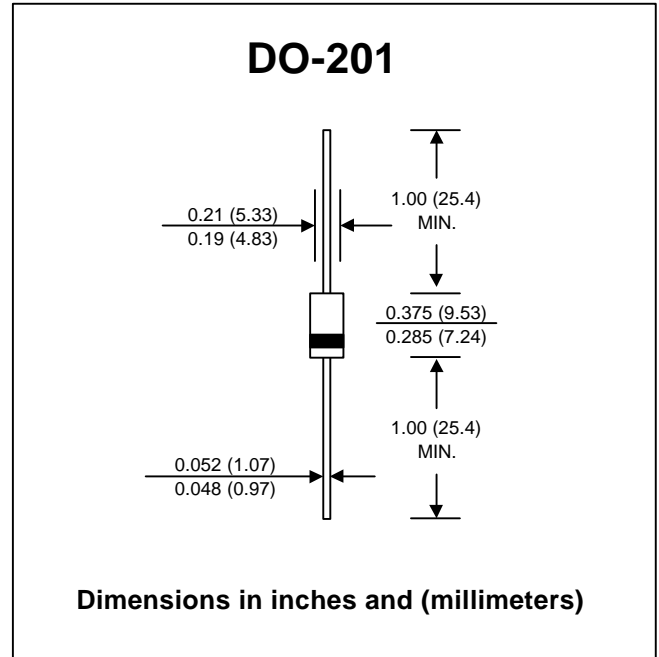
## FEATURES :

- \* 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<sub>BR(min.)</sub>
- \* Typical I<sub>R</sub> less than 1μA above 10V

## MECHANICAL DATA

- \* Case : DO-201 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 : 0.93 grams

# TRANSIENT VOLTAGE SUPPRESSOR



## 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)	PPK	1500	W
Steady State Power Dissipation at TL = 75 °C Lead Lengths 0.375", (9.5mm) (Note 2)	P <sub>D</sub>	5.0	W
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 3)	I <sub>FSM</sub>	200	A
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 65 to + 175	°C

## Notes :

- (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 in<sup>2</sup> (40mm<sup>2</sup>).
- (3) 8.3 ms single half sine-wave, duty cycle = 4 pulses per minutes maximum.

## ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified

Type No.		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
Uni-directional	Bi-directional	VBR (V)		It	VRWM	IR	IRSM	VRSM	(% /°C)
		Min.	Max.	(mA)	(V)	(µA)	(A)	(V)	
1N6267A	1N6267CA	6.45	7.14	10	5.80	1000	143	10.5	0.057
1N6268A	1N6268CA	7.13	7.88	10	6.40	500	132	11.3	0.061
1N6269A	1N6269CA	7.79	8.61	10	7.02	200	124	12.1	0.065
1N6270A	1N6270CA	8.65	9.55	1.0	7.78	50	112	13.4	0.068
1N6271A	1N6271CA	9.50	10.5	1.0	8.55	10	103	14.5	0.073
1N6272A	1N6272CA	10.5	11.6	1.0	9.40	5.0	96.0	15.6	0.075
1N6273A	1N6273CA	11.4	12.6	1.0	10.2	5.0	90.0	16.7	0.078
1N6274A	1N6274CA	12.4	13.7	1.0	11.1	5.0	82.0	18.2	0.081
1N6275A	1N6275CA	14.3	15.8	1.0	12.8	5.0	71.0	21.2	0.084
1N6276A	1N6276CA	15.2	16.8	1.0	13.6	5.0	67.0	22.5	0.086
1N6277A	1N6277CA	17.1	18.9	1.0	15.3	5.0	59.5	25.2	0.088
1N6278A	1N6278CA	19.0	21.0	1.0	17.1	5.0	54.0	27.7	0.090
1N6279A	1N6279CA	20.9	23.1	1.0	18.8	5.0	49.0	30.6	0.092
1N6280A	1N6280CA	22.8	25.2	1.0	20.5	5.0	45.0	33.2	0.094
1N6281A	1N6281CA	25.7	28.4	1.0	23.1	5.0	40.0	37.5	0.096
1N6282A	1N6282CA	28.5	31.5	1.0	25.6	5.0	36.0	41.4	0.097
1N6283A	1N6283CA	31.4	34.7	1.0	28.2	5.0	33.0	45.7	0.098
1N6284A	1N6284CA	34.2	37.8	1.0	30.8	5.0	30.0	49.9	0.099
1N6285A	1N6285CA	37.1	41.0	1.0	33.3	5.0	28.0	53.9	0.100
1N6286A	1N6286CA	40.9	45.2	1.0	36.8	5.0	25.3	59.3	0.101
1N6287A	1N6287CA	44.7	49.4	1.0	40.2	5.0	23.2	64.8	0.101
1N6288A	1N6288CA	48.5	53.6	1.0	43.6	5.0	21.4	70.1	0.102
1N6289A	1N6289CA	53.2	58.8	1.0	47.8	5.0	19.5	77.0	0.103
1N6290A	1N6290CA	58.9	65.1	1.0	53.0	5.0	17.7	85.0	0.104
1N6291A	1N6291CA	64.6	71.4	1.0	58.1	5.0	16.3	92.0	0.104
1N6292A	1N6292CA	71.3	78.8	1.0	64.1	5.0	14.6	103	0.105
1N6293A	1N6293CA	77.9	86.1	1.0	70.1	5.0	13.3	113	0.105
1N6294A	1N6294CA	86.5	95.5	1.0	77.8	5.0	12.0	125	0.106
1N6295A	1N6295CA	95.0	105	1.0	85.5	5.0	11.0	137	0.106
1N6296A	1N6296CA	105	116	1.0	94.0	5.0	9.9	152	0.107
1N6297A	1N6297CA	114	126	1.0	102	5.0	9.1	165	0.107
1N6298A	1N6298CA	124	137	1.0	111	5.0	8.4	179	0.107
1N6299A	1N6299CA	143	158	1.0	128	5.0	7.2	207	0.108
1N6300A	1N6300CA	152	168	1.0	136	5.0	6.8	219	0.108
1N6301A	1N6301CA	162	179	1.0	145	5.0	6.4	234	0.108
1N6302A	1N6302CA	171	189	1.0	154	5.0	6.1	246	0.108
1N6303A	1N6303CA	190	210	1.0	171	5.0	5.5	274	0.108

**Notes:**

- ( 1 ) VBR measured after It applied for 300 µs., It = square wave pulse or equivalent.
- ( 2 ) VF = 3.5 Vmax., IF = 100 Amps. ( 6.8 Volts thru 91 Volts )  
VF = 5.0 Vmax., IF = 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 ( 1N6267A - 1N6303CA )

FIG.1 - PULSE DERATING CURVE

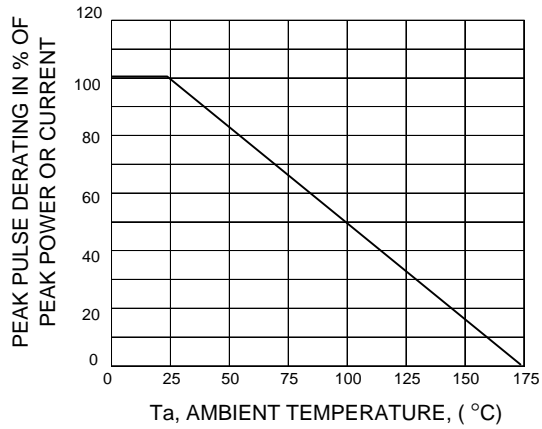


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

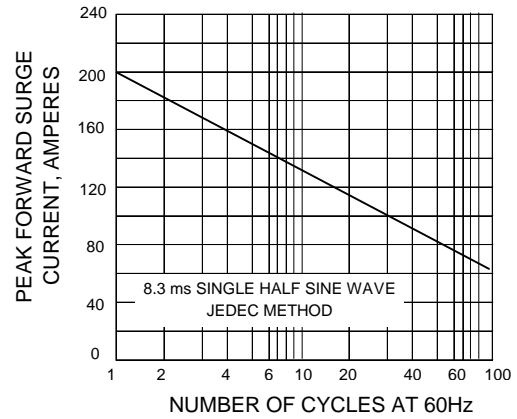


FIG.3 - STEADY STATE POWER DERATING

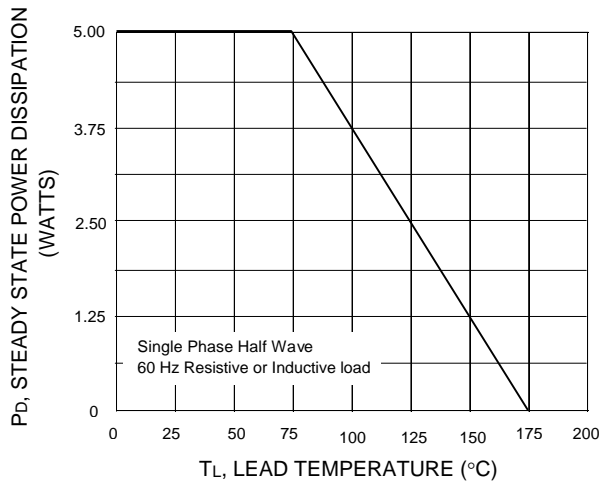


FIG.4 - PULSE RATING CURVE

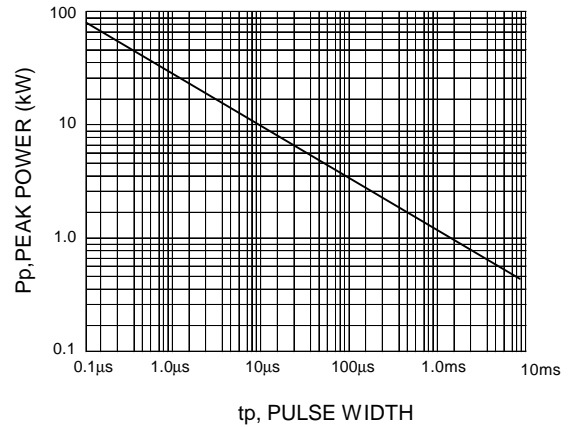


FIG.5 - PULSE WAVEFORM

