

Axial Leaded Uni/Bi-Directional TVS Diodes

Peak Pulse Power - 1500 W
Reverse Breakdown Voltage - 6.8 to 550 V

Description

The 1.5KEG series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Features

- Glass passivated chip junction in DO-201 Package
- 1500W Peak pulse power capability at 10/1000 μ s waveform
- Excellent clamping capability
- Typical IR less than 1 μ A above 10V
- Fast response time: typically less than 1.0ps from 0 Volts to VBR min
- High temperature soldering: 260 $^{\circ}$ C/10s

Mechanical Data

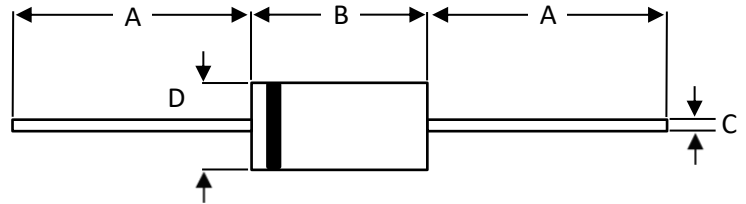
- Case:DO-201 package
- Case material: "green" molding compound
- UL flammability classification rating 94V-0
- Polarity : by cathode band denotes uni-directional device, none cathode band denotes bi-directional device
- Weight: 0.4grams

Note: Products with logo  or  are made by HY Electronic (Cayman) Limited

Applications

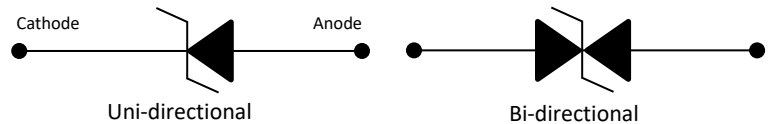
TVS devices are ideal for the protection of I/O Interfaces, Vcc bus and other vulnerable circuits used in telecom, computer, industrial and consumer electronic applications.

Package Outline Dimensions



DO-201 Package		
Dim	Min	Max
A	25.4	-
B	7.20	9.50
C	0.96	1.07
D	4.80	5.30
All Dimensions in mm		

Device Schematic



Ordering Information

- Package :DO-201
- Packing Option:Tape Box
- Quantity Per Box :1.2Kpcs
- Quantity Per Carton :12Kpcs

Maximum Ratings (@TA = +25 $^{\circ}$ C, unless otherwise specified.)

Absolute Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at TA=25 $^{\circ}$ C by 10/1000us Waveform (Note 1)	PPP	1500	W
Power Dissipation on Infinite Heat Sink at TL=75 $^{\circ}$ C	P _{M(AV)}	6.5	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave (Note 2)	I _{FSM}	200	A
Operating Temperature Range	T _j	-55 to +150	$^{\circ}$ C
Storage Temperature Range	T _{STG}	-55 to +150	$^{\circ}$ C

Note:

1. Non-repetitive current pulse, per Fig.4 and derated above T_j(initial) =25 $^{\circ}$ C per Fig.1
2. For unidirectional units only

Electrical Characteristics (@T_A = 25°C, unless otherwise specified.)

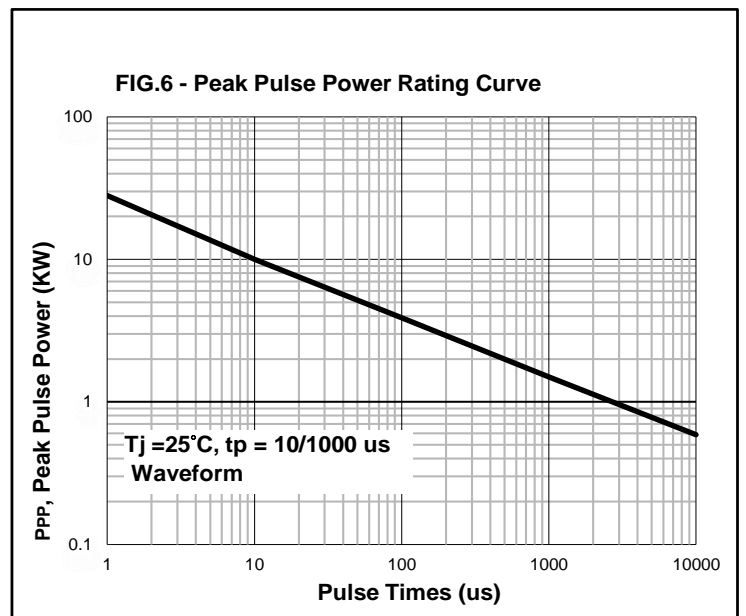
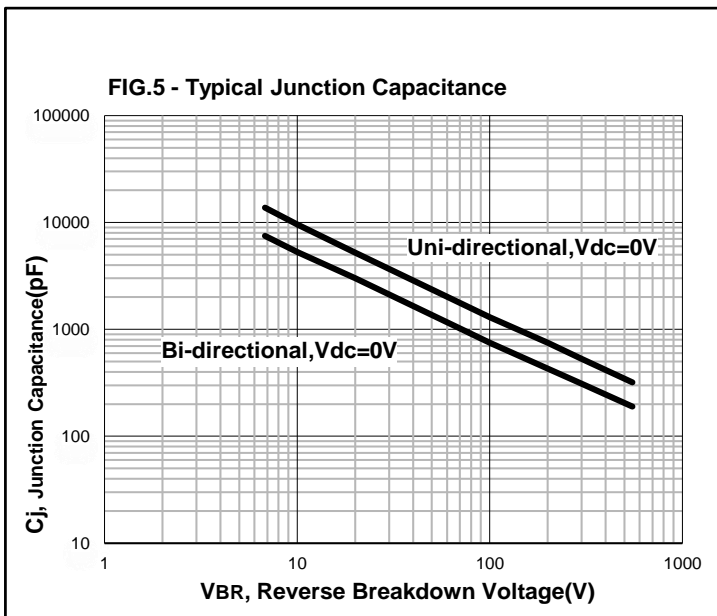
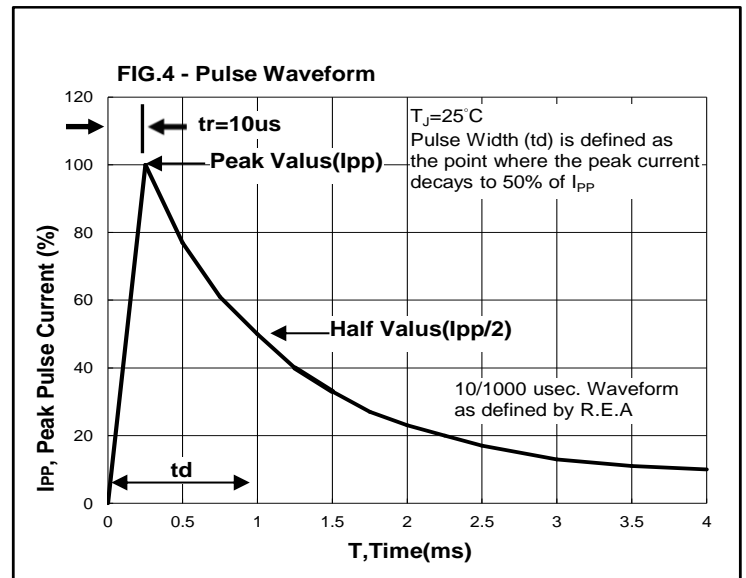
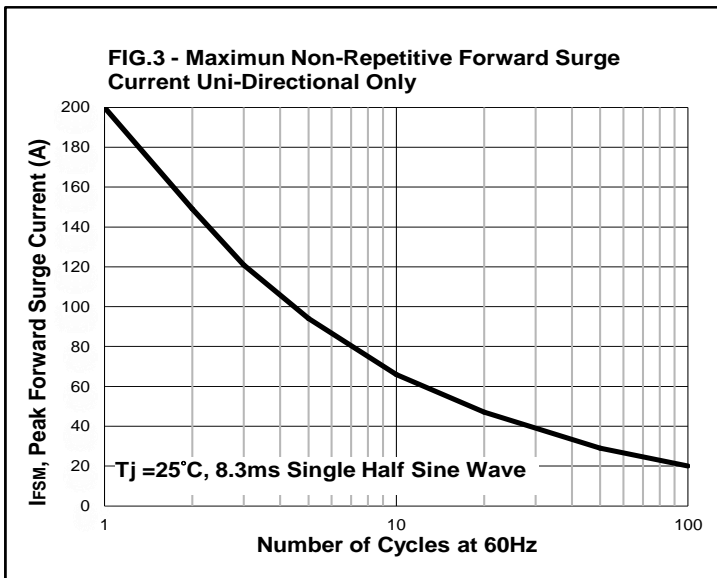
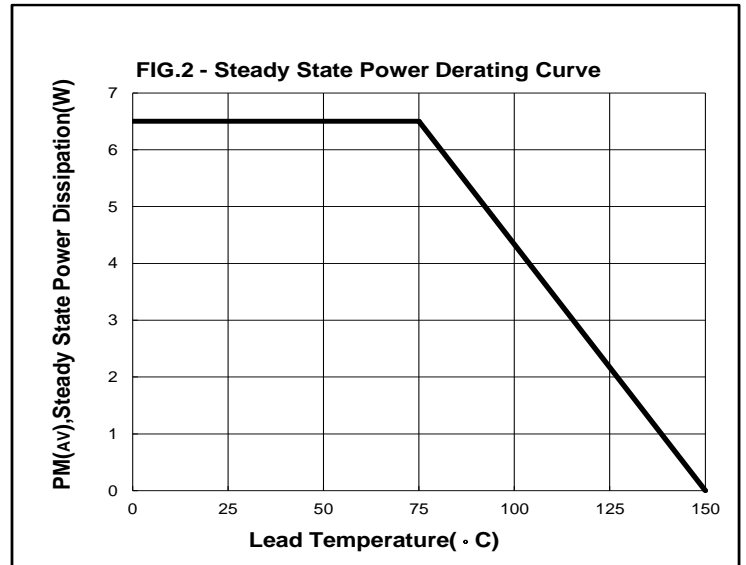
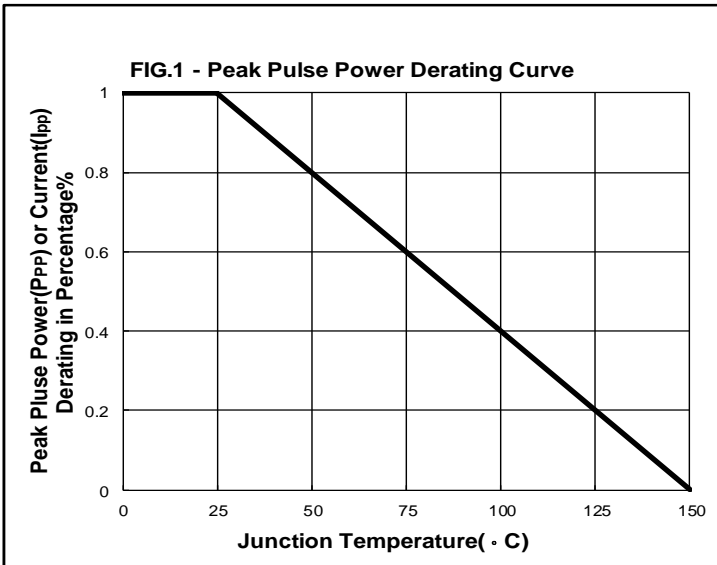
Part Number		Marking Code		Reverse Working Voltage V _{RWM} (V)	Reverse Breakdown Voltage V _B (V)			Reverse Leakage (Max) I _R (uA) @V _R	Reverse Clamping Voltage (Max) V _C (V) @I _{PP}	Peak Pulse Current (Max) I _{PP} (A)
Uni.	Bi.	Uni.	Bi.		Min.	Max.	@I _T (mA)			
1.5KEG6.8A	1.5KEG6.8CA	1.5KE6.8A	1.5KE6.8CA	5.8	6.45	7.14	10	1000	10.5	142.9
1.5KEG7.5A	1.5KEG7.5CA	1.5KE7.5A	1.5KE7.5CA	6.4	7.13	7.88	10	500	11.3	132.7
1.5KEG8.2A	1.5KEG8.2CA	1.5KE8.2A	1.5KE8.2CA	7.0	7.79	8.61	10	200	12.1	124.0
1.5KEG9.1A	1.5KEG9.1CA	1.5KE9.1A	1.5KE9.1CA	7.8	8.65	9.50	10	50	13.4	111.9
1.5KEG10A	1.5KEG10CA	1.5KE10A	1.5KE10CA	8.6	9.5	10.5	1	1	14.5	103.5
1.5KEG11A	1.5KEG11CA	1.5KE11A	1.5KE11CA	9.4	10.5	11.6	1	1	15.6	96.2
1.5KEG12A	1.5KEG12CA	1.5KE12A	1.5KE12CA	10.2	11.4	12.6	1	1	16.7	89.8
1.5KEG13A	1.5KEG13CA	1.5KE13A	1.5KE13CA	11.1	12.4	13.7	1	1	18.2	82.4
1.5KEG15A	1.5KEG15CA	1.5KE15A	1.5KE15CA	13	14.3	15.8	1	1	21.2	70.8
1.5KEG16A	1.5KEG16CA	1.5KE16A	1.5KE16CA	14	15.2	16.8	1	1	22.5	66.7
1.5KEG18A	1.5KEG18CA	1.5KE18A	1.5KE18CA	15	17.1	18.9	1	1	25.2	59.5
1.5KEG20A	1.5KEG20CA	1.5KE20A	1.5KE20CA	17	19.0	21.0	1	1	27.7	54.2
1.5KEG22A	1.5KEG22CA	1.5KE22A	1.5KE22CA	19	20.9	23.1	1	1	30.6	49.0
1.5KEG24A	1.5KEG24CA	1.5KE24A	1.5KE24CA	21	22.8	25.2	1	1	33.2	45.2
1.5KEG27A	1.5KEG27CA	1.5KE27A	1.5KE27CA	23	25.7	28.4	1	1	37.5	40.0
1.5KEG30A	1.5KEG30CA	1.5KE30A	1.5KE30CA	26	28.5	31.5	1	1	41.4	36.2
1.5KEG33A	1.5KEG33CA	1.5KE33A	1.5KE33CA	28	31.4	34.7	1	1	45.7	32.8
1.5KEG36A	1.5KEG36CA	1.5KE36A	1.5KE36CA	31	34.2	37.8	1	1	49.9	30.1
1.5KEG39A	1.5KEG39CA	1.5KE39A	1.5KE39CA	33	37.1	41.0	1	1	53.9	27.8
1.5KEG43A	1.5KEG43CA	1.5KE43A	1.5KE43CA	37	40.9	45.2	1	1	59.3	25.3
1.5KEG47A	1.5KEG47CA	1.5KE47A	1.5KE47CA	40	44.7	49.4	1	1	64.8	23.2
1.5KEG51A	1.5KEG51CA	1.5KE51A	1.5KE51CA	44	48.5	53.6	1	1	70.1	21.4
1.5KEG56A	1.5KEG56CA	1.5KE56A	1.5KE56CA	48	53.2	58.8	1	1	77	19.5
1.5KEG62A	1.5KEG62CA	1.5KE62A	1.5KE62CA	53	58.9	65.1	1	1	85	17.7
1.5KEG68A	1.5KEG68CA	1.5KE68A	1.5KE68CA	58	64.6	71.4	1	1	92	16.3
1.5KEG75A	1.5KEG75CA	1.5KE75A	1.5KE75CA	64	71.3	78.8	1	1	103	14.6
1.5KEG82A	1.5KEG82CA	1.5KE82A	1.5KE82CA	70	77.9	86.1	1	1	113	13.3
1.5KEG91A	1.5KEG91CA	1.5KE91A	1.5KE91CA	78	86.5	95.5	1	1	125	12.0
1.5KEG100A	1.5KEG100CA	1.5KE100A	1.5KE100CA	84	95	105	1	1	137	11.0
1.5KEG110A	1.5KEG110CA	1.5KE110A	1.5KE110CA	94	105	116	1	1	152	9.9
1.5KEG120A	1.5KEG120CA	1.5KE120A	1.5KE120CA	102	114	126	1	1	165	9.1
1.5KEG130A	1.5KEG130CA	1.5KE130A	1.5KE130CA	111	124	137	1	1	179	8.4
1.5KEG150A	1.5KEG150CA	1.5KE150A	1.5KE150CA	128	143	158	1	1	207	7.3
1.5KEG160A	1.5KEG160CA	1.5KE160A	1.5KE160CA	136	152	168	1	1	219	6.9
1.5KEG170A	1.5KEG170CA	1.5KE170A	1.5KE170CA	145	162	179	1	1	234	6.4
1.5KEG180A	1.5KEG180CA	1.5KE180A	1.5KE180CA	154	171	189	1	1	246	6.1
1.5KEG200A	1.5KEG200CA	1.5KE200A	1.5KE200CA	171	190	210	1	1	274	5.5
1.5KEG220A	1.5KEG220CA	1.5KE220A	1.5KE220CA	185	209	231	1	1	328	4.6
1.5KEG250A	1.5KEG250CA	1.5KE250A	1.5KE250CA	214	237	263	1	1	344	4.4
1.5KEG300A	1.5KEG300CA	1.5KE300A	1.5KE300CA	256	285	315	1	1	414	3.6
1.5KEG350A	1.5KEG350CA	1.5KE350A	1.5KE350CA	300	332	368	1	1	482	3.1
1.5KEG400A	1.5KEG400CA	1.5KE400A	1.5KE400CA	342	380	420	1	1	548	2.7
1.5KEG440A	1.5KEG440CA	1.5KE440A	1.5KE440CA	376	418	462	1	1	602	2.5
1.5KEG480A	1.5KEG480CA	1.5KE480A	1.5KE480CA	408	456	504	1	1	658	2.3
1.5KEG510A	1.5KEG510CA	1.5KE510A	1.5KE510CA	434	485	535	1	1	698	2.2
1.5KEG530A	1.5KEG530CA	1.5KE530A	1.5KE530CA	450	504	557	1	1	725	2.1
1.5KEG540A	1.5KEG540CA	1.5KE540A	1.5KE540CA	459	513	567	1	1	740	2.0
1.5KEG550A	1.5KEG550CA	1.5KE550A	1.5KE550CA	467	523	578	1	1	760	1.97

Note:

1. Suffix "A" denotes 5% tolerance device.
2. Add suffix "CA" after part number to specify bi-directional devices.
3. The IR limit is double for bi-directional devices.



Rating and Characteristic Curves





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