

1500W AXIAL LEAD TVS

Features

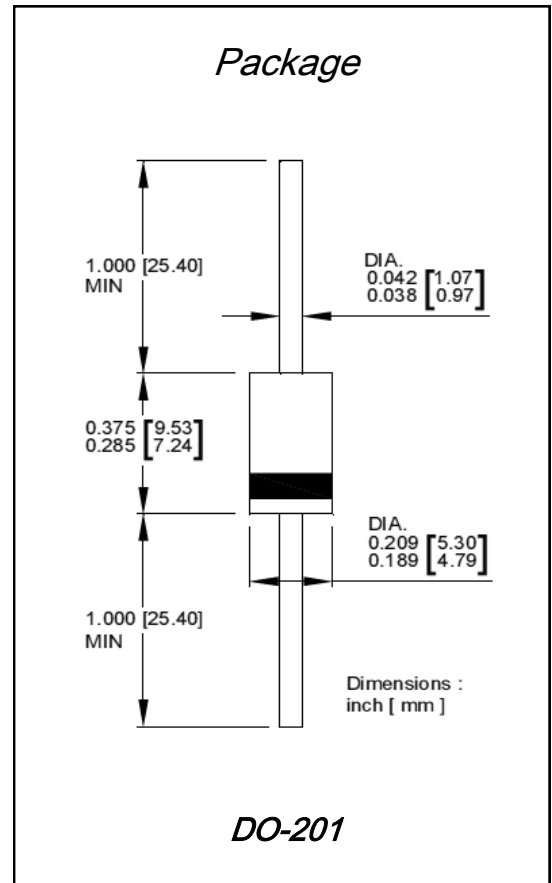
- ◆ Glass Passivated Chip
- ◆ Low Leakage
- ◆ Uni and Bidirectional Unit
- ◆ Excellent Clamping Capability
- ◆ Very Fast Response Time
- ◆ RoHS Compliant
- ◆ 1500 W peak pulse power capability with 10/1000us waveform, repetitive rate (dutycycle):0.01 %

Application

- ◆ IPC
- ◆ Car Electronics
- ◆ Power Supply
- ◆ Smart Meters

Mechanical Characteristics

- ◆ Case: Molded Plastic
- ◆ Epoxy: UL 94V-0 rate flame retardant
- ◆ Lead: Solderable per MIL-STD-202, method 208 guaranteed
- ◆ Polarity: Color band denotes cathode end except Bi-directional parts
- ◆ Mounting position: Any



DEVICE CHARACTERISTICS

Maximum Rating			
Parameter	Symbol	Value	Units
Peak Power Dissipation With 10/1000us Waveform	P _{PP}	1500	Watt
Peak Pulse Current With 10/1000us Waveform	I _{PP}	-	A
Power Dissipation On Infinite Heatsink @ T _L = 75°C	P _D	6.5	Watt
Peak Forward Surge Current	I _{FSM}	200	A
Maximum Instantaneous Forward Voltage @ 50 A	V _F	3.5/5	V
Operating Temperature Range	T _J	-55~150	°C
Storage Temperature Range	T _{STG}	-55~150	°C

ELECTRICAL CHARACTERISTICS @ 25°C								
Part Number	Part Number	Breakdown Voltage VBR @IT			IR @	V _{RWM}	I _{PP}	V _C @ I _{PP}
		Min (V)	Max (V)	IT (mA)	V _{RWM}	(V)	(A)	(V)
1.5KE6.8A	1.5KE6.8CA	6.46	7.14	10	1000	5.8	142.86	10.5
1.5KE7.5A	1.5KE7.5CA	7.13	7.88	10	500	6.4	132.74	11.3
1.5KE8.2A	1.5KE8.2CA	7.79	8.61	10	200	7	123.97	12.1
1.5KE9.1A	1.5KE9.1CA	8.65	9.56	1	50	7.8	111.94	13.4
1.5KE10A	1.5KE10CA	9.5	10.5	1	10	8.6	103.45	14.5
1.5KE11A	1.5KE11CA	10.45	11.55	1	5	9.4	96.15	15.6
1.5KE12A	1.5KE12CA	11.4	12.6	1	5	10.2	89.82	16.7
1.5KE13A	1.5KE13CA	12.35	13.65	1	1	11.1	82.42	18.2
1.5KE15A	1.5KE15CA	14.25	15.75	1	1	12.8	70.75	21.2
1.5KE16A	1.5KE16CA	15.2	16.8	1	1	13.6	66.67	22.5
1.5KE18A	1.5KE18CA	17.1	18.9	1	1	15.3	59.52	25.2
1.5KE20A	1.5KE20CA	19	21	1	1	17.1	54.15	27.7
1.5KE22A	1.5KE22CA	20.9	23.1	1	1	18.8	49.02	30.6
1.5KE24A	1.5KE24CA	22.8	25.2	1	1	20.5	45.18	33.2
1.5KE27A	1.5KE27CA	25.65	28.35	1	1	23.1	40	37.5
1.5KE30A	1.5KE30CA	28.5	31.5	1	1	25.6	36.23	41.4

DEVICE CHARACTERISTICS

ELECTRICAL CHARACTERISTICS @ 25°C								
Part Number	Part Number	Breakdown Voltage VBR @IT			IR @ V _{RWM}	V _{RWM}	I _{PP}	V _C @ I _{PP}
		Min (V)	Max (V)	IT (mA)	(μ A)	(V)	(A)	(V)
1.5KE33A	1.5KE33CA	31.35	34.65	1	1	28.2	32.82	45.7
1.5KE36A	1.5KE36CA	34.2	37.8	1	1	30.8	30.06	49.9
1.5KE39A	1.5KE39CA	37.05	40.95	1	1	33.3	27.83	53.9
1.5KE43A	1.5KE43CA	40.85	45.15	1	1	36.8	25.3	59.3
1.5KE47A	1.5KE47CA	44.65	49.35	1	1	40.2	23.15	64.8
1.5KE51A	1.5KE51CA	48.45	53.55	1	1	43.6	21.4	70.1
1.5KE56A	1.5KE56CA	53.2	58.8	1	1	47.8	19.48	77
1.5KE62A	1.5KE62CA	58.9	65.1	1	1	53	17.65	85
1.5KE68A	1.5KE68CA	64.6	71.4	1	1	58.1	16.3	92
1.5KE75A	1.5KE75CA	71.25	78.75	1	1	64.1	14.56	103
1.5KE82A	1.5KE82CA	77.9	86.1	1	1	70.1	13.27	113
1.5KE91A	1.5KE91CA	86.45	95.55	1	1	77.8	12	125
1.5KE100A	1.5KE100CA	95	105	1	1	85.5	10.95	137
1.5KE110A	1.5KE110CA	104.5	115.5	1	1	94	9.87	152
1.5KE120A	1.5KE120CA	114	126	1	1	102	9.09	165
1.5KE130A	1.5KE130CA	123.5	136.5	1	1	111	8.38	179
1.5KE150A	1.5KE150CA	142.5	157.5	1	1	128	7.25	207
1.5KE160A	1.5KE160CA	152	168	1	1	136	6.85	219
1.5KE170A	1.5KE170CA	161.5	178.5	1	1	145	6.41	234
1.5KE180A	1.5KE180CA	171	189	1	1	154	6.1	246
1.5KE200A	1.5KE200CA	190	210	1	1	171	5.47	274
1.5KE220A	1.5KE220CA	209	231	1	1	185	4.57	328
1.5KE250A	1.5KE250CA	237.5	262.5	1	1	214	4.36	344
1.5KE300A	1.5KE300CA	285	315	1	1	256	3.62	414
1.5KE350A	1.5KE350CA	332.5	367.5	1	1	299.3	3.11	482
1.5KE380A	1.5KE380CA	361	399	1	1	324.9	2.86	524.4
1.5KE400A	1.5KE400CA	380	420	1	1	342	2.72	548
1.5KE440A	1.5KE440CA	418	462	1	1	376.2	2.47	602
1.5KE500A	1.5KE500CA	475	525	1	1	427.5	2.17	690
1.5KE520A	1.5KE520CA	494	546	1	1	444.6	2.09	717.6
1.5KE550A	1.5KE550CA	522.5	577.5	1	1	470.3	1.98	759
1.5KE600A	1.5KE600CA	570	630	1	1	513	1.81	828

RATING CURVES

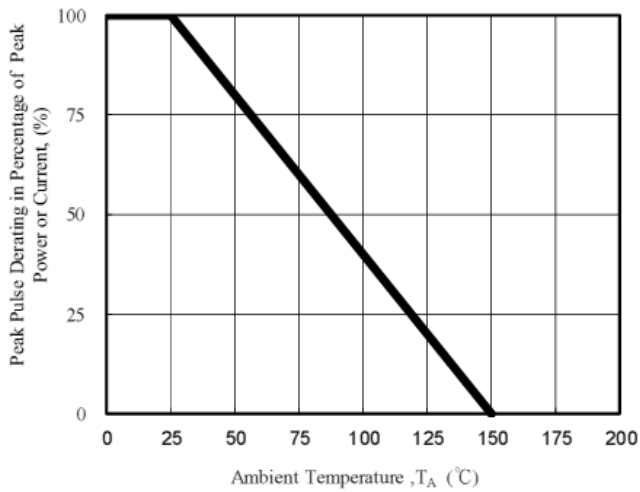


Fig. 1 - Pulse Derating Curve

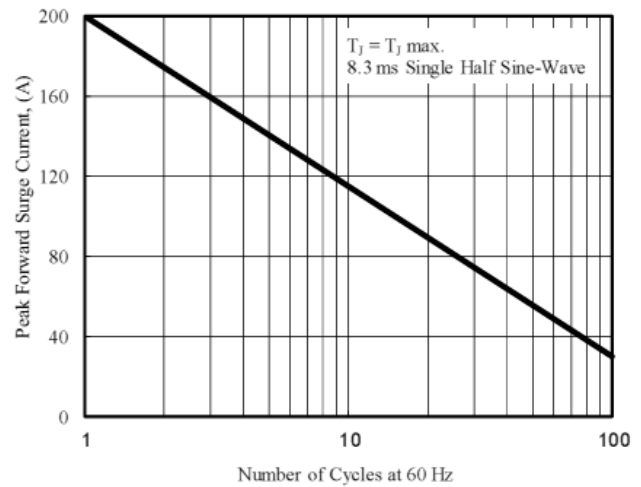


Fig. 2 - Maximum Non-Repetitive Surge Current

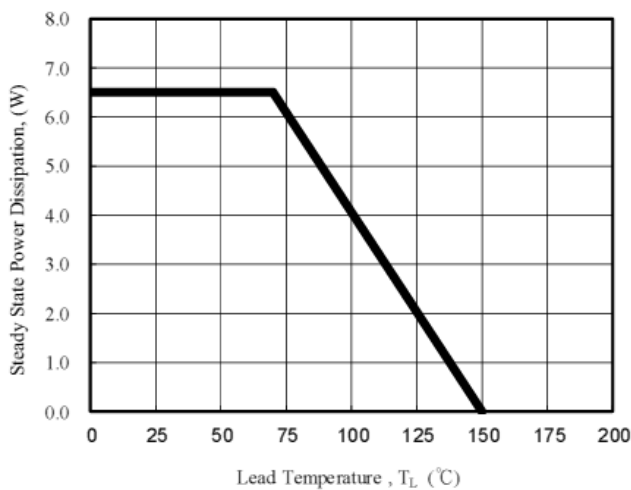


Fig. 3 - Steady State Power Derating Curve

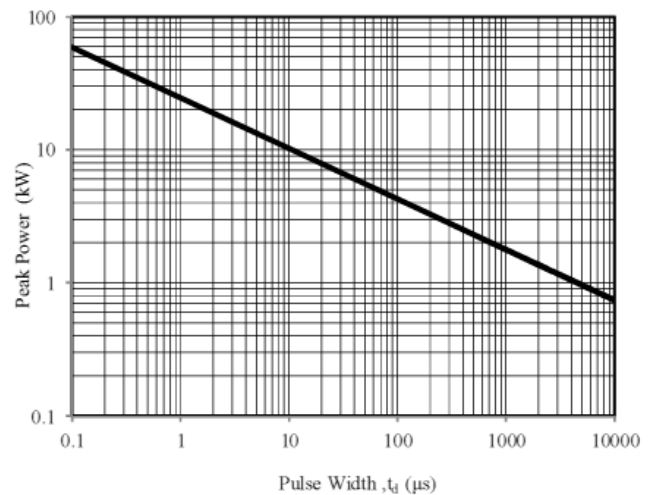


Fig. 4 - Peak Pulse Power Rating Curve

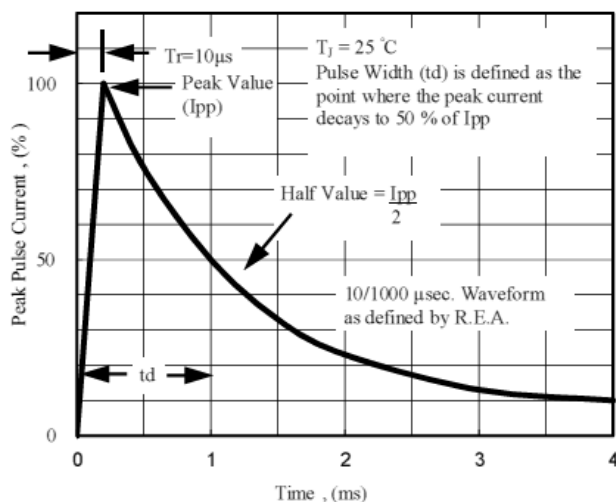


Fig. 5 - Pulse Waveform

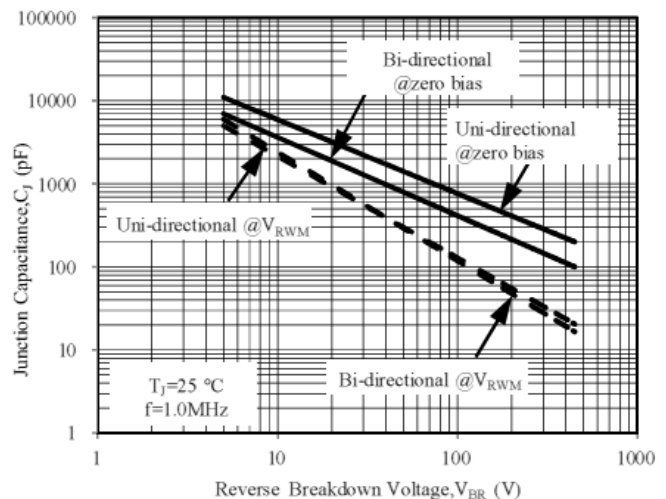


Fig. 6 - Typical Junction Capacitance

REFERENCE

Revision History	Modification Description
Rev.1.0	Initial Release
Rev.1.01	Edit Document Layout