

HIGH WATTS SERIES TVS SPECIFICATION

15KW SERIES

GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR

VOLTAGE-17 TO 280 Volts

15000 Watt Peak Pulse Power

15KW PART NUMBER		REVERSE STAND- OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE		MAXIMUM LEAKAGE CURRENT @ V_{RWM} $I_R(\mu A)$	MAXIMUM PEAK PULSE CURRENT @ I_{PP} I_{PP} (A)	MAXIMUM CLAMPING VOLTAGE @ I_{PP} V_C (V)
			MIN V_{BR} Volts	@ I_T mA			
UNI-POLAR	BI-POLAR						
15KPA17A	15KPA17CA	17	18.9	50	5000	512	29.3
15KPA18A	15KPA18CA	18	20.0	50	5000	485	30.9
15KPA20A	15KPA20CA	20	22.2	20	1500	437	34.3
15KPA22A	15KPA22CA	22	24.4	10	500	404	37.1
15KPA24A	15KPA24CA	24	26.7	5	150	369	40.5
15KPA26A	15KPA26CA	26	28.9	5	50	347	44.0
15KPA28A	15KPA28CA	28	31.1	5	25	316	47.5
15KPA30A	15KPA30CA	30	33.3	5	15	296	50.7
15KPA33A	15KPA33CA	33	36.7	5	10	274	54.8
15KPA36A	15KPA36CA	36	40.0	5	10	251	59.7
15KPA40A	15KPA40CA	40	44.4	5	10	228	65.8
15KPA43A	15KPA43CA	43	47.8	5	10	215	69.7
15KPA45A	15KPA45CA	45	50.0	5	10	205	73.0
15KPA48A	15KPA48CA	48	53.3	5	10	193	77.7
15KPA51A	15KPA51CA	51	56.7	5	10	181	82.8
15KPA54A	15KPA54CA	54	60.0	5	10	171	87.5
15KPA58A	15KPA58CA	58	64.4	5	10	160	94.0
15KPA60A	15KPA60CA	60	66.7	5	10	154	97.3
15KPA64A	15KPA64CA	64	71.1	5	10	144	104.0
15KPA70A	15KPA70CA	70	77.8	5	10	132	114.0
15KPA75A	15KPA75CA	75	83.3	5	10	123	122.0
15KPA78A	15KPA78CA	78	86.7	5	10	119	126.0
15KPA85A	15KPA85CA	85	94.4	5	10	109	137.0
15KPA90A	15KPA90CA	90	100.0	5	10	103	146.0
15KPA100A	15KPA100CA	100	111.0	5	10	93	162.0
15KPA110A	15KPA110CA	110	122.0	5	10	84	178.0
15KPA120A	15KPA120CA	120	133.0	5	10	78	193.0
15KPA130A	15KPA130CA	130	144.0	5	10	72	209.0
15KPA150A	15KPA150CA	150	167.0	5	10	62	243.0
15KPA160A	15KPA160CA	160	178.0	5	10	58	259.0
15KPA170A	15KPA170CA	170	189.0	5	10	55	275.0
15KPA180A	15KPA180CA	180	200.0	5	10	52	291.0
15KPA200A	15KPA200CA	200	222.0	5	10	47	322.0
15KPA220A	15KPA220CA	220	245.0	5	10	42	356.0
15KPA240A	15KPA240CA	240	267.0	5	10	39	388.0
15KPA260A	15KPA260CA	260	289.0	5	10	36	419.0
15KPA280A	15KPA280CA	280	311.0	5	10	33	452.0

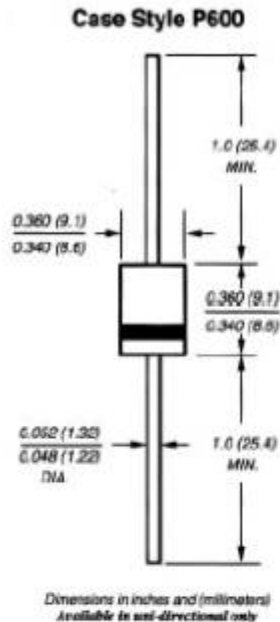
For bidirectional type having V_{RWM} of 30 volts and less, the IR limit is double.

For parts without A, the V_{BR} is $\pm 10\%$

20KW SERIES**CLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR****VOLTAGE-20.0 TO 300 Volts****2000 Watt Peak Pulse Power**

20KW PART NUMBER		REVERSE STAND- OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN. @ I_T	BREAKDOWN VOLTAGE $V_{BR}(V)$ MAX. @ I_T	TEST CURRENT I_T (mA)	PEAK PULSE CURRENT $I_{PP}(A)$	REVERSE LEAKAGE @ V_{RWM} $I_R(\mu A)$	MAXIMUM CLAMPING VOLTAGE @ $I_{PP} V_C(V)$
UNI-POLAR	BI-POLAR							
20KW20A	20KW20CA	20	25.60	28.00	50	544.0	5000	36.8
20KW24A	20KW24CA	24	26.68	29.48	50	486.0	5000	41.2
20KW26A	20KW26CA	26	28.88	31.92	50	447.0	2000	44.7
20KW28A	20KW28CA	28	31.12	34.40	50	417.0	1000	48.0
20KW30A	20KW30CA	30	33.32	36.84	5	388.0	250	51.5
20KW32A	20KW32CA	32	35.56	39.32	5	368.0	150	54.3
20KW34A	20KW34CA	34	37.76	41.60	5	348.0	50	57.5
20KW36A	20KW36CA	36	40.00	44.40	5	325.0	20	61.5
20KW40A	20KW40CA	40	44.40	49.20	5	295.0	15	67.8
20KW44A	20KW44CA	44	48.80	54.00	5	275.0	10	72.7
20KW48A	20KW48CA	48	53.20	58.80	5	252.0	10	79.4
20KW52A	20KW52CA	52	57.60	63.60	5	233.0	10	85.8
20KW56A	20KW56CA	56	62.40	68.80	5	216.0	10	92.6
20KW60A	20KW60CA	60	66.80	74.00	5	205.0	10	97.6
20KW64A	20KW64CA	64	71.20	78.80	5	193.0	10	103.6
20KW68A	20KW68CA	68	75.60	83.60	5	181.0	10	110.5
20KW72A	20KW72CA	72	80.00	88.40	5	172.0	10	116.3
20KW80A	20KW80CA	80	88.80	98.00	5	154.0	10	129.9
20KW88A	20KW88CA	88	97.60	107.60	5	141.0	10	141.8
20KW96A	20KW96CA	96	106.80	118.00	5	129.0	10	155.0
20KW104A	20KW104CA	104	115.60	127.60	5	119.0	10	168.1
20KW112A	20KW112CA	112	124.40	137.60	5	110.0	10	181.8
20KW120A	20KW120CA	120	133.20	147.20	5	103.0	10	194.2
20KW132A	20KW132CA	132	146.80	162.40	5	94.0	10	212.8
20KW144A	20KW144CA	144	160.00	176.80	5	86.0	10	232.6
20KW160A	20KW160CA	160	177.60	196.40	5	78.0	10	256.4
20KW172A	20KW172CA	172	191.20	211.20	5	72.0	10	277.8
20KW180A	20KW180CA	180	200.00	221.20	5	69.0	10	289.9
20KW192A	20KW192CA	192	213.20	235.60	5	65.0	10	307.7
20KW204A	20KW204CA	204	226.80	250.80	5	61.0	10	327.9
20KW216A	20KW216CA	216	240.00	265.20	5	58.0	10	344.8
20KW232A	20KW232CA	232	257.60	284.80	5	54.0	10	370.4
20KW240A	20KW240CA	240	266.80	294.80	5	52.0	10	384.6
20KW256A	20KW256CA	256	284.40	314.40	5	49.0	10	408.2
20KW280A	20KW280CA	280	311.20	344.00	5	44.0	10	454.5
20KW300A	20KW300CA	300	333.20	368.40	5	41.0	10	487.8

For bidirectional type having V_{RWM} of 40 volts and less, the I_R limit is double.For parts without A, the V_{BR} is $\pm 10\%$

20KW SERIES**CLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR****VOLTAGE-20.0 TO 300 Volts****20000 Watt Peak Pulse Power****FEATURES**

- ⊙ Plastic package
- ⊙ Glass passivated junction
- ⊙ 20000W Peak Pulse Power capability on 10/1000 μ s waveform
- ⊙ Excellent clamping capability
- ⊙ Repetition rate (duty cycle) : 0.05%
- ⊙ Low incremental surge resistance
- ⊙ Fast response time : typically less than 1.0 ps from 0 volts to BV
- ⊙ High temperature soldering guaranteed : 265°C / 10 seconds / .375" , (9.5mm) lead length, 51lbs. , (2.3kg) tension

MECHANICAL DATA

Case: Molded plastic over glass passivated junction

Terminal: Plated Axial Leads , solderable per MIL-STD-750, Method 2026

Polarity: Color band denoted positive end (cathode) except Bipolar

Mounting Position: Any

Weight: 0.07 ounce, 2.1 gram

DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 20KW 20 thru types 20KW 300.

Electrical characteristics apply in both directions.

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/ 1000 μ s waveform	P_{PPM}	Minimum 20000	Watts
Peak Pulse Current of on 10-1000 μ s waveform	I_{PPM}	SEE TABLE 1	Amps
Steady State Power Dissipation at $T_1 = 75^\circ\text{C}$ Lead Lengths, .375", (9.5mm)	$P_M (AV)$	8	Watts
Peak Forward Surge Current, 1/20 second / 25°C (JEDEC Method)	I_{FSM}	400	Amps
Operatings and Storage Temperature Range	T_J, T_{STG}	-55 to +175	$^\circ\text{C}$

Notes :

- 1.Non-repetitive current pulse , per Fig. 3 and derated above $T_A = 25^\circ\text{C}$ per Fig. 2 .
- 2.Mounted on Copper Pad area of 0.8x0.8" (20x20mm) per Fig. 5

30KW SERIES**GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR****VOLTAGE-30 TO 288 Volts****30000 watt Peak Pulse Power**

30KW PART NUMBER		REVERSE STAND- OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN. @ I_T	BREAKDOWN VOLTAGE $V_{BR}(V)$ MAX. @ I_T	TEST CURRENT I_T (mA)	PEAK PULSE CURRENT I_{PP} (A)	REVERSE LEAKAGE @ V_{RWM} $I_R(A)$	MAXIMUM CLAMPING VOLTAGE @ I_{PP} V_C (V)
UNI-POLAR	BI-POLAR							
30KW30A	30KW30CA	30	38.4	42.00	50	544.0	5000	55.1
30KW36A	30KW36CA	36	40.0	44.22	50	486.0	5000	61.7
30KW39A	30KW39CA	39	43.3	47.88	50	447.0	2000	67.1
30KW42A	30KW42CA	42	46.7	51.60	50	417.0	1000	71.9
30KW45A	30KW45CA	45	50.0	55.26	5	388.0	250	77.3
30KW48A	30KW48CA	48	53.3	58.98	5	368.0	150	81.5
30KW51A	30KW51CA	51	56.6	62.40	5	348.0	50	86.2
30KW54A	30KW54CA	54	60.0	66.60	5	325.0	20	92.3
30KW60A	30KW60CA	60	66.6	73.80	5	295.0	15	102.0
30KW66A	30KW66CA	66	73.2	81.00	5	275.0	10	109.0
30KW72A	30KW72CA	72	79.8	88.20	5	252.0	10	119.0
30KW78A	30KW78CA	78	86.4	95.40	5	233.0	10	129.0
30KW84A	30KW84CA	84	93.6	103.20	5	216.0	10	139.0
30KW90A	30KW90CA	90	100.2	111.00	5	205.0	10	146.0
30KW96A	30KW96CA	96	106.8	118.20	5	193.0	10	155.0
30KW102A	30KW102CA	102	113.4	125.40	5	181.0	10	166.0
30KW108A	30KW108CA	108	120.0	132.60	5	172.0	10	174.0
30KW120A	30KW120CA	120	133.2	147.00	5	154.0	10	195.0
30KW132A	30KW132CA	132	146.4	161.40	5	141.0	10	213.0
30KW144A	30KW144CA	144	160.2	177.00	5	129.0	10	233.0
30KW156A	30KW156CA	156	173.4	191.40	5	119.0	10	252.0
30KW168A	30KW168CA	168	186.6	206.40	5	110.0	10	273.0
30KW180A	30KW180CA	180	199.8	220.80	5	103.0	10	291.0
30KW198A	30KW198CA	198	220.2	243.60	5	94.0	10	319.0
30KW216A	30KW216CA	216	240.0	265.20	5	86.0	10	348.0
30KW240A	30KW240CA	240	266.4	294.60	5	78.0	10	387.0
30KW258A	30KW258CA	258	286.8	316.80	5	72.0	10	416.0
30KW270A	30KW270CA	270	300.0	331.80	5	69.0	10	436.0
30KW288A	30KW288CA	288	319.0	353.40	5	65.0	10	464.0

For bidirectional type having V_{RWM} of 60 volts and less, the IR limit is double.For parts without A, the V_{BR} is $\pm 10\%$