

DESCRIPTION

The 15KPA series is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

FEATURES

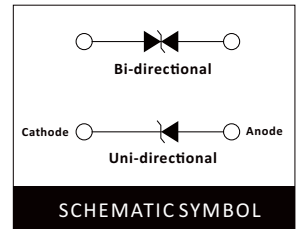
- > Plastic package has underwriters laboratory.
- > Flammability classification 94V-0.
- > Glass passivated junction.
- > 15000W peak pulse power capability on 10/1000 μ s waveform.
- > Excellent clamping capability.
- > Low incremental surge resistance.
- > Fast response time: typically less than 1.0ps from 0 Volts to V_{BR} .
- > Typical IR less than 2 μ A above 10V.

MECHANICAL DATE

- > Molded plastic over glass passivated junction.
- > Terminals: Axial leads, solderable per MIL-STD-750, Method 2026.
- > Polarity: Color band denoted cathode except bidirectional.
- > Mounting Position: Any.

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.



MAXIMUM RATINGS AND CHARACTERISTICS Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000us waveform (Note1).	P_{PM}	15000	Watts
Peak Pulse Current of on 10/1000us waveform(Note1).	I_{PPM}	See Table	Amps
Steady State Power Dissipation at $T_L = 75^\circ\text{C}$, Lead lengths.375", (9.5mm).	$P_M(AV)$	8.0	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 2).	I_{FSM}	400	Amps
Operating Temperature Range.	T_J	-55~+175	$^\circ\text{C}$
Storage Temperature Range.	T_{STG}	-55~+175	$^\circ\text{C}$
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	40	$^\circ\text{C/W}$

NOTES :

1. Non-repetitive current pulse, $T_A = 25^\circ\text{C}$.
2. 8.3ms single half sine-wave, or equivalent square wave, Duty cycle=4 pulses per minutes maximum.



ELECTRICAL CHARACTERISTICS

Part Number		Reverse Stand-off Voltage	Breakdown Voltage Min.@I _T	Breakdown Voltage Max.@I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
Uni-Polar	Bi-Polar	V _{RWM} (V)	V _{BR} (V)	V _{BR} (V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
15KPA17A	15KPA17CA	17.0	18.90	20.90	50	29.3	515.4	5000
15KPA18A	15KPA18CA	18.0	20.00	22.10	50	30.9	488.7	5000
15KPA20A	15KPA20CA	20.0	22.20	24.50	20	34.3	440.2	1500
15KPA22A	15KPA22CA	22.0	24.40	26.90	10	37.1	407.0	500
15KPA24A	15KPA24CA	24.0	26.70	29.50	5	40.7	371.0	150
15KPA26A	15KPA26CA	26.0	28.90	31.90	5	44.0	343.2	50
15KPA28A	15KPA28CA	28.0	31.10	34.40	5	47.5	317.9	25
15KPA30A	15KPA30CA	30.0	33.30	36.80	5	50.7	297.8	15
15KPA33A	15KPA33CA	33.0	36.70	40.60	5	54.7	276.1	2
15KPA36A	15KPA36CA	36.0	40.00	44.20	5	59.8	252.5	2
15KPA40A	15KPA40CA	40.0	44.40	49.10	5	65.8	229.5	2
15KPA43A	15KPA43CA	43.0	47.80	52.80	5	69.8	216.3	2
15KPA45A	15KPA45CA	45.0	50.00	55.30	5	72.8	207.4	2
15KPA48A	15KPA48CA	48.0	53.30	58.90	5	77.7	194.3	2
15KPA51A	15KPA51CA	51.0	56.70	62.70	5	82.9	182.1	2
15KPA54A	15KPA54CA	54.0	60.00	66.30	5	87.7	172.2	2
15KPA58A	15KPA58CA	58.0	64.40	71.20	5	93.8	161.0	2
15KPA60A	15KPA60CA	60.0	66.70	73.70	5	97.4	155.0	2
15KPA64A	15KPA64CA	64.0	71.10	78.60	5	104.2	144.9	2
15KPA70A	15KPA70CA	70.0	77.80	86.00	5	113.6	132.9	2
15KPA75A	15KPA75CA	75.0	83.30	92.10	5	122.0	123.8	2
15KPA78A	15KPA78CA	78.0	86.70	95.80	5	126.1	119.7	2
15KPA85A	15KPA85CA	85.0	94.40	104.0	5	137.6	109.7	2
15KPA90A	15KPA90CA	90.0	100.0	111.0	5	145.6	103.7	2
15KPA100A	15KPA100CA	100.0	111.0	123.0	5	161.3	93.6	2
15KPA110A	15KPA110CA	110.0	122.0	135.0	5	178.6	84.5	2
15KPA120A	15KPA120CA	120.0	133.0	147.0	5	192.3	78.5	2
15KPA130A	15KPA130CA	130.0	144.0	159.0	5	208.3	72.5	2
15KPA150A	15KPA150CA	150.0	167.0	185.0	5	241.9	62.4	2
15KPA160A	15KPA160CA	160.0	178.0	197.0	5	258.6	58.4	2



ELECTRICAL CHARACTERISTICS

Part Number		Reverse Stand-off Voltage	Breakdown Voltage Min.@I _T	Breakdown Voltage Max.@I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
Uni-Polar	Bi-Polar	V _{RWM} (V)	V _{BR} (V)	V _{BR} (V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
15KPA170A	15KPA170CA	170.0	189.0	209.0	5	272.7	55.4	2
15KPA180A	15KPA180CA	180.0	201.0	222.0	5	288.5	52.3	2
15KPA200A	15KPA200CA	200.0	224.0	247.0	5	319.1	47.3	2
15KPA220A	15KPA220CA	220.0	246.0	272.0	5	352.5	42.8	2
15KPA240A	15KPA240CA	240.0	268.0	292.0	5	384.6	39.3	2
15KPA260A	15KPA260CA	260.0	289.0	317.0	5	416.7	36.2	2
15KPA280A	15KPA280CA	280.0	311.0	341.0	5	454.5	33.2	2



RATINGS AND CHARACTERISTIC CURVES ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

(UNI-directional)

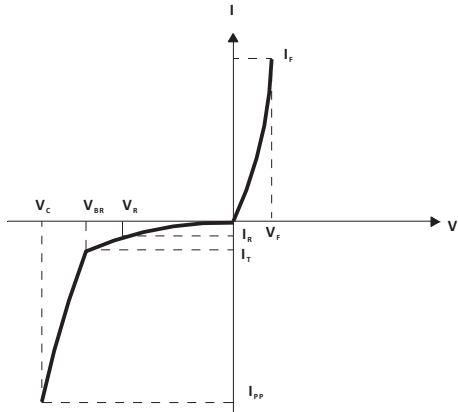


FIG.1:V-I curve characteristics

(Bi-directional)

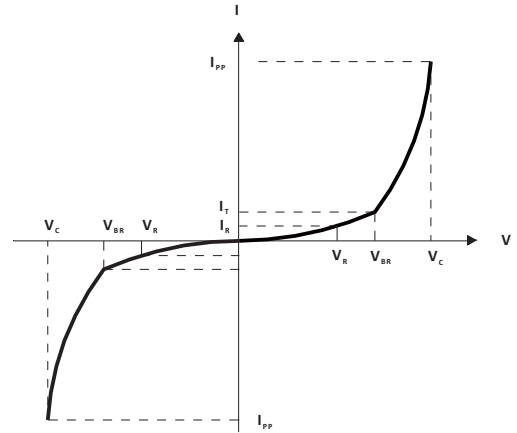


FIG.2:V-I curve characteristics

$I_{PPM}(\%I_{RSM})$

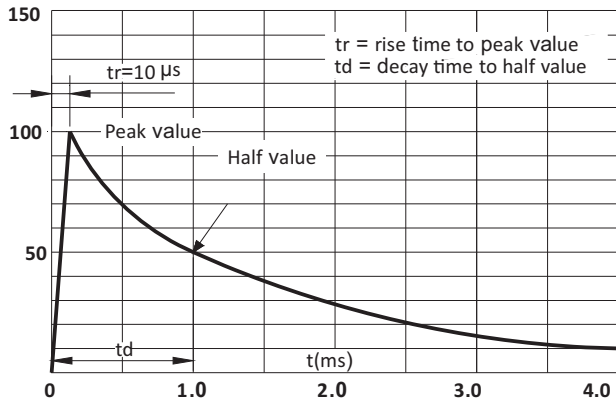


FIG.3:Pulse waveform

P_{PP} derating in percentage(%)

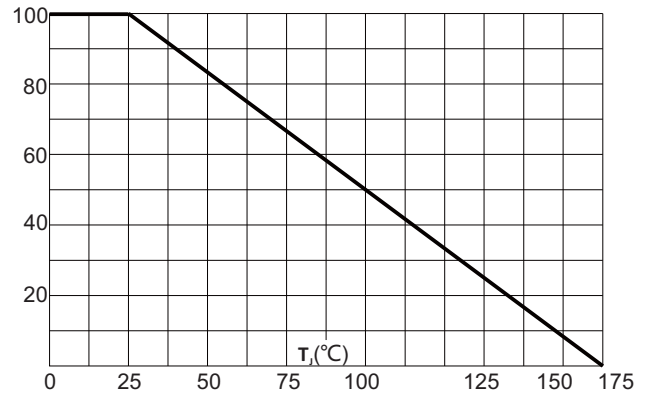
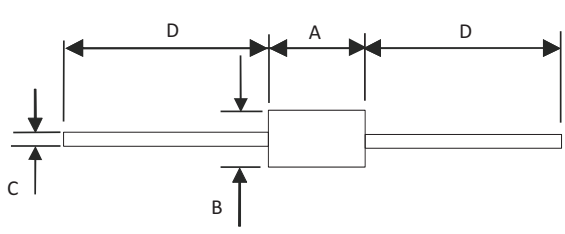


FIG.4:Pulse derating curve



DIMENSIONS

	Dimension	Inches		Millimeters	
		Min	Max	Min	Max
	A	0.340	0.370	8.636	9.398
	B	0.340	0.360	8.636	9.144
	C	0.048	0.056	1.220	1.420
	D	1.000		25.40	

ORDERING INFORMATION

Part Number	Component Package	BASE QUANTITY	PACKING OPTION
15KPAxx(C)A	P600	300PCS/BOX	AMMO
15KPAxx(C)A	P600	800PCS/REEL	Tape&Reel

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