



Micro Commercial Components

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# 5KP5.0 THRU 5KP110A

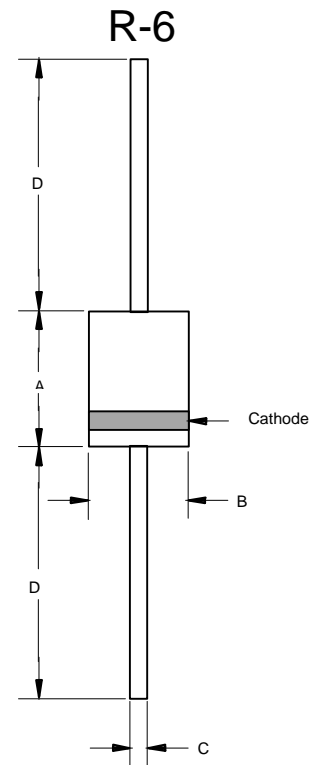
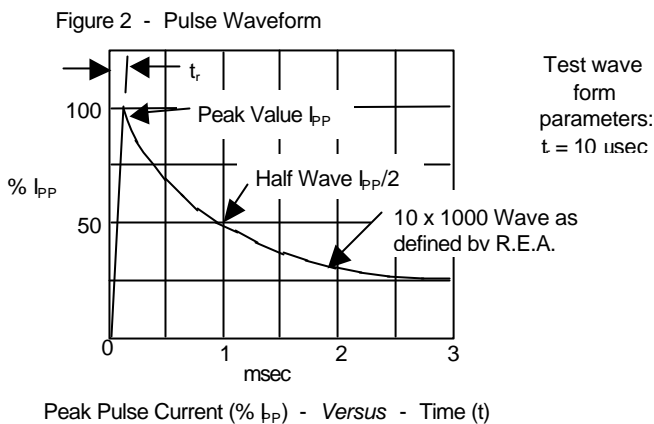
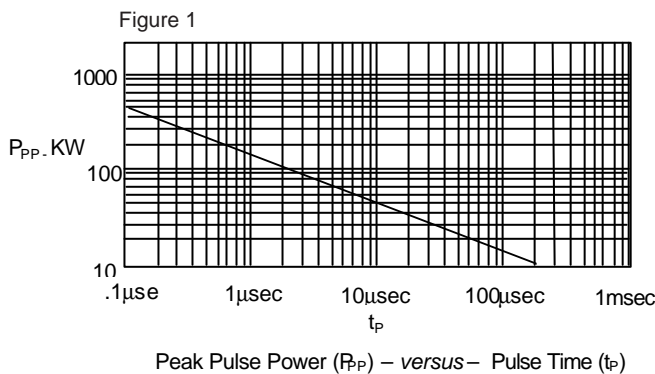
## 5000 Watt Transient Voltage Suppressors 5.0 to 110 Volts

### Features

- Unidirectional And Bidirectional
- UL Recognized File # E222849
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- For Bidirectional Devices Add "C" To The Suffix Of The Part Number: i.e. 5KP6.5C or 5KP6.5CA for 5% Tolerance Devices
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1
- Marking : Cathode band and type number
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)

### Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- 5000 Watt Peak Power
- Response Time  $1 \times 10^{-12}$  Seconds For Unidirectional and  $5 \times 10^{-9}$  For Bidirectional



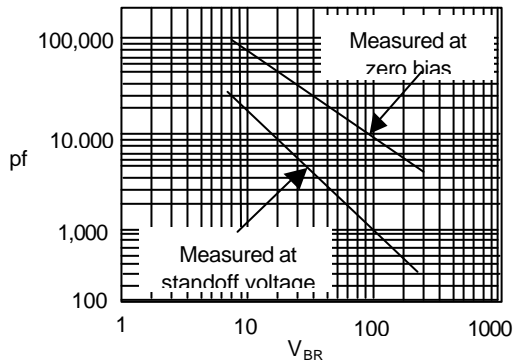
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.340	.360	8.60	9.10	
B	.340	.360	8.60	9.10	
C	.048	.052	1.20	1.30	
D	1.000	---	25.40	---	

Notes:1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.

# 5KP5.0 thru 5KP110A

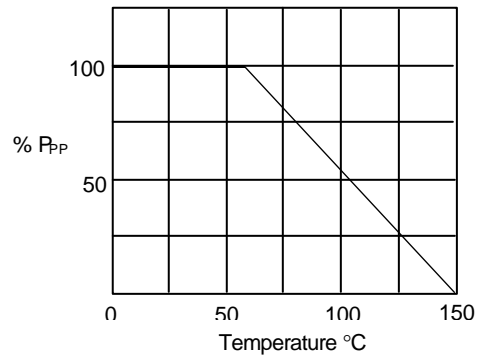


Figure 3 - Typical Capacitance



Typical Capacitance (pf) – versus – Breakdown voltage

Figure 4 - Derating Curve



Peak Pulse Power (% P<sub>PP</sub>) - Versus - Temperature °C

## ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	REVERSE STAND-OFF VOLTAGE V <sub>WM</sub>	BREAKDOWN VOLTAGE V <sub>(BR)</sub> @ I <sub>T</sub>			MAXIMUM CLAMPING VOLTAGE @ I <sub>PP</sub>	PEAK PULSE CURRENT I <sub>PP</sub>	MAXIMUM REVERSE LEAKAGE @ V <sub>WM</sub> I <sub>D</sub>	MAXIMUM VOLTAGE TEMPERATURE VARIATION OF V <sub>BR</sub>
	(VOLTS)	MIN	MAX	I <sub>T</sub> (mA)				
5KP5.0	5.0	6.40	7.30	50	9.6	520	2000	4.0
5KP5.0A	5.0	6.40	7.00	50	9.2	543	2000	4.0
5KP6.0	6.0	6.67	8.15	50	11.4	439	5000	4.0
5KP6.0A	6.0	6.67	7.37	50	10.3	485	5000	4.0
5KP6.5	6.5	7.22	8.82	50	12.3	407	2000	4.0
5KP6.5A	6.5	7.22	7.98	50	11.2	447	2000	4.0
5KP7.0	7.0	7.78	9.51	50	13.3	378	1000	5.0
5KP7.0A	7.0	7.78	8.60	50	12.0	417	1000	5.0
5KP7.5	7.5	8.33	10.2	5	14.3	350	250	6.0
5KP7.5A	7.5	8.33	9.21	5	12.9	388	250	6.0
5KP8.0	8.0	8.89	10.9	5	15.0	333	150	6.0
5KP8.0A	8.0	8.89	9.83	5	13.6	367	150	6.0
5KP8.5	8.5	9.44	11.5	5	15.9	314	50	7.0
5KP8.5A	8.5	9.44	10.4	5	14.4	347	50	7.0
5KP9.0	9.0	10.0	12.2	5	16.9	295	20	8.0
5KP9.0A	9.0	10.0	11.1	5	15.4	325	20	8.0
5KP10	10	11.1	13.6	5	18.8	266	15	9.0
5KP10A	10	11.1	12.3	5	17.0	294	15	9.0
5KP11	11	12.2	14.9	5	20.1	249	10	10
5KP11A	11	12.2	13.5	5	18.2	274	10	10
5KP12	12	13.3	16.3	5	22.0	227	10	11
5KP12A	12	13.3	14.7	5	19.9	251	10	11
5KP13	13	14.4	17.6	5	23.8	210	10	12
5KP13A	13	14.4	15.9	5	21.5	232	10	12
5KP14	14	15.6	19.1	5	25.8	194	10	13
5KP14A	14	15.6	17.2	5	23.2	215	10	13
5KP15	15	16.7	20.4	5	26.9	188	10	15
5KP15A	15	16.7	18.5	5	24.4	206	10	15
5KP16	16	17.8	21.8	5	28.8	176	10	18
5KP16A	16	17.8	19.7	5	26.0	192	10	16
5KP17	17	18.9	23.1	5	30.5	164	10	19
5KP17A	17	18.9	20.9	5	27.6	181	10	18
5KP18	18	20.0	24.4	5	32.2	155	10	20
5KP18A	18	20.0	22.1	5	29.2	172	10	19
5KP20	20	22.2	27.1	5	35.8	139	10	24
5KP20A	20	22.2	24.5	5	32.4	154	10	22
5KP22	22	24.4	29.8	5	39.4	127	10	27
5KP22A	22	24.4	26.9	5	35.5	141	10	24

## ELECTRICAL CHARACTERISTICS @25°C

MCC PART NUMBER	REVERSE STAND-OFF VOLTAGE $V_{WM}$	BREAKDOWN VOLTAGE $V_{(BR)} @ I_T$ (VOLTS)			MAXIMUM CLAMPING VOLTAGE @ $I_{PP}$	PEAK PULSE CURRENT $I_{PP}$	MAXIMUM REVERSE LEAKAGE @ $V_{WM}$ $I_D$	MAXIMUM VOLTAGE TEMPERATURE VARIATION OF $V_{BR}$
	(VOLTS)	MIN	MAX	$I_T$ (mA)	(VOLTS)	(AMPS)	( $\mu$ A)	mV / °C
5KP24	24	26.7	32.6	5	43.0	116	10	30
5KP24A	24	26.7	29.5	5	38.9	128	10	27
5KP26	26	28.9	35.3	5	46.6	107	10	33
5KP26A	26	28.9	31.9	5	42.1	119	10	29
5KP28	28	31.1	38.0	5	50.0	99	10	34
5KP28A	28	31.1	34.4	5	45.4	110	10	30
5KP30	30	33.3	40.7	5	53.5	93	10	38
5KP30A	30	33.3	36.8	5	48.4	103	10	35
5KP33	33	36.7	44.9	5	59.0	85	10	41
5KP33A	33	36.7	40.6	5	53.3	94	10	38
5KP36	36	40.0	48.9	5	64.3	78	10	45
5KP36A	36	40.0	44.2	5	58.1	86	10	40
5KP40	40	44.4	54.3	5	71.4	70	10	50
5KP40A	40	44.4	49.1	5	64.5	78	10	45
5KP43	43	47.8	58.4	5	76.7	65	10	54
5KP43A	43	47.8	52.8	5	69.4	72	10	49
5KP45	45	50.0	61.1	5	80.3	62	10	57
5KP45A	45	50.0	55.3	5	72.7	69	10	51
5KP48	48	53.3	65.1	5	85.5	58	10	62
5KP48A	48	53.3	58.9	5	77.4	65	10	55
5KP 51	51	56.7	69.3	5	91.1	55	10	65
5KP51A	51	56.7	62.7	5	82.4	61	10	60
5KP54	54	60.0	73.3	5	96.3	52	10	70
5KP54A	54	60.0	66.3	5	87.1	57	10	64
5KP58	58	64.4	78.7	5	103	49	10	77
5KP58A	58	64.4	71.2	5	93.6	53	10	69
5KP60	60	66.7	81.5	5	107	47	10	79
5KP60A	60	66.7	73.7	5	96.8	52	10	70
5KP64	64	71.1	86.9	5	114	44	10	85
5KP64A	64	71.1	78.6	5	103	49	10	75
5KP70	70	77.8	95.1	5	125	40	10	93
5KP70A	70	77.8	86.0	5	113	44	10	84
5KP75	75	83.3	102	5	134	37	10	100
5KP75A	75	83.3	92.1	5	121	41	10	90
5KP78	78	86.7	106	5	139	36	10	104
5KP78A	78	86.7	95.8	5	126	40	10	94
5KP85	85	94.4	115	5	151	33	10	113
5KP85A	85	94.4	104	5	137	36	10	102
5KP90	90	100	122	5	160	31	10	120
5KP90A	90	100	111	5	146	34	10	109
5KP100	100	111	136	5	179	28	10	134
5KP100A	100	111	123	5	162	31	10	122
5KP110	110	122	149	5	196	26	10	147
5KP110A	110	122	135	5	177	28	10	132



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## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel; 500pcs/Reel
(Part Number)-AP	Ammo Packing;450pcs/AmmoBox
(Part Number)-BP	Bulk;200pcs/Box

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