

	<b>E480232</b>
-----------------------------------------------------------------------------------	----------------

**Features**

- Low Inductance
- For Bidirectional Devices Add "C" To The Suffix of
- The Part Number: i.e.3KP5.0CA
- Suffix "C" of Part Number Denotes Bi-directional Unit.
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

**Maximum Ratings**

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C

Peak Pulse Power Dissipation with a 10/1000µs Waveform	$P_{PPM}$	3000W (Min.)	(Note 2, FIG.1)
Steady State Power Dissipation	$P_{M(AV)}$	6.5 W	$T_L=75^\circ C$ , Lead lengths .375", (9.5mm) (Note 3)

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a.  
 2. Non-repetitive current pulse, per Fig.3 and derated above  $T_A=25^\circ C$  per Fig.4  
 3. Mounted on Copper Pad area of 1.6x1.6" (40x40mm) per

**Device Marking:**

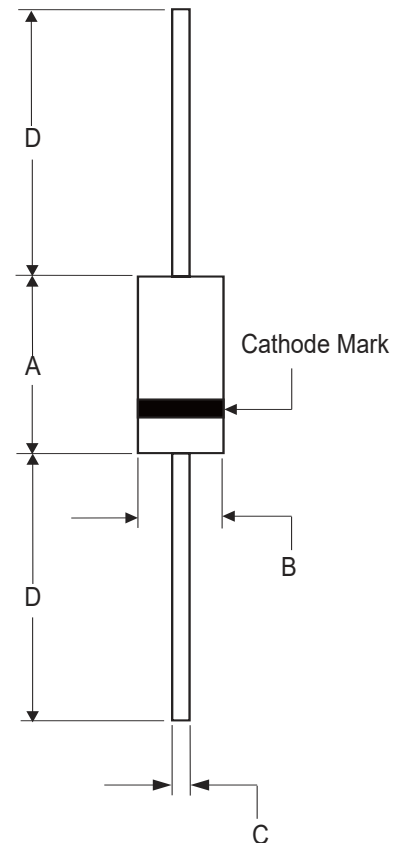
Unidirectional - Type Number and Cathode Band  
 Bidirectional - Type Number Only

Pin Configuration



**3000Watts TVS  
5.0 to 220 Volts**

R-6



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.340	0.360	8.60	9.10	
B	0.340	0.360	8.60	9.10	
C	0.048	0.052	1.20	1.32	
D	1.000	-----	25.40	-----	

MCC 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)	MAXIMUM CLAMPING VOLTAGE @ $I_{pp}$ $V_c(V)$	PEAK PULSE CURRENT $I_{pp}$ (A)	REVERSE LEAKAGE @ $V_{RWM}$ $I_R$ ( $\mu A$ )
UNI-POLAR	BI-POLAR							
3KP5.0A	3KP5.0CA	5.0	6.40	7.00	50	9.2	326.1	5000
3KP6.0A	3KP6.0CA	6.0	6.67	7.37	50	10.3	291.3	5000
3KP6.5A	3KP6.5CA	6.5	7.22	7.98	50	11.2	267.9	2000
3KP7.0A	3KP7.0CA	7.0	7.78	8.60	50	12.0	250.0	1000
3KP7.5A	3KP7.5CA	7.5	8.33	9.21	5	12.9	232.6	250
3KP8.0A	3KP8.0CA	8.0	8.89	9.83	5	13.6	220.6	150
3KP8.5A	3KP8.5CA	8.5	9.44	10.40	5	14.4	208.3	50
3KP9.0A	3KP9.0CA	9.0	10.00	11.10	5	15.4	194.8	20
3KP10A	3KP10CA	10.0	11.10	12.30	5	17.0	176.5	15
3KP11A	3KP11CA	11.0	12.20	13.50	5	18.2	164.8	10
3KP12A	3KP12CA	12.0	13.30	14.70	5	19.9	150.8	10
3KP13A	3KP13CA	13.0	14.40	15.90	5	21.5	139.5	10
3KP14A	3KP14CA	14.0	15.60	17.20	5	23.2	129.3	10
3KP15A	3KP15CA	15.0	16.70	18.50	5	24.4	123.0	10
3KP16A	3KP16CA	16.0	17.80	19.70	5	26.0	115.4	10
3KP17A	3KP17CA	17.0	18.90	20.90	5	27.6	108.7	10
3KP18A	3KP18CA	18.0	20.00	22.10	5	29.2	102.7	10
3KP20A	3KP20CA	20.0	22.20	24.50	5	32.4	92.6	10
3KP22A	3KP22CA	22.0	24.40	26.90	5	35.5	84.5	10
3KP24A	3KP24CA	24.0	26.70	29.50	5	38.9	77.1	10
3KP26A	3KP26CA	26.0	28.90	31.90	5	42.1	71.3	10
3KP28A	3KP28CA	28.0	31.10	34.40	5	45.4	66.1	10
3KP30A	3KP30CA	30.0	33.30	36.80	5	48.4	62.0	10
3KP33A	3KP33CA	33.0	36.70	40.60	5	53.3	56.3	10
3KP36A	3KP36CA	36.0	40.00	44.20	5	58.1	51.6	10
3KP40A	3KP40CA	40.0	44.40	49.10	5	64.5	46.5	10
3KP43A	3KP43CA	43.0	47.80	52.80	5	69.4	43.2	10
3KP45A	3KP45CA	45.0	50.00	55.30	5	72.7	41.3	10
3KP48A	3KP48CA	48.0	53.30	58.90	5	77.4	38.8	10
3KP51A	3KP51CA	51.0	56.70	62.70	5	82.4	36.4	10
3KP54A	3KP54CA	54.0	60.00	66.30	5	87.1	34.4	10
3KP58A	3KP58CA	58.0	64.40	71.20	5	93.6	32.1	10
3KP60A	3KP60CA	60.0	66.70	73.70	5	96.8	31.0	10
3KP64A	3KP64CA	64.0	71.10	78.60	5	103.0	29.1	10
3KP70A	3KP70CA	70.0	77.80	86.00	5	113.0	26.5	10
3KP75A	3KP75CA	75.0	83.30	92.10	5	121.0	24.8	10
3KP78A	3KP78CA	78.0	86.70	95.80	5	126.0	23.8	10
3KP85A	3KP85CA	85.0	94.40	104.00	5	137.0	21.9	10
3KP90A	3KP90CA	90.0	100.00	111.00	5	146.0	20.5	10
3KP100A	3KP100CA	100.0	111.00	123.00	5	162.0	18.5	10
3KP110A	3KP110CA	110.0	122.00	135.00	5	177.0	16.9	10
3KP120A	3KP120CA	120.0	133.00	147.00	5	193.0	15.5	10
3KP130A	3KP130CA	130.0	144.00	159.00	5	209.0	14.4	10
3KP150A	3KP150CA	150.0	167.00	185.00	5	243.0	12.3	10
3KP160A	3KP160CA	160.0	178.00	197.00	5	259.0	11.6	10
3KP170A	3KP170CA	170.0	189.00	209.00	5	275.0	10.9	10
3KP180A	3KP180CA	180.0	200.00	221.00	5	289.0	10.4	10
3KP190A	3KP190CA	190.0	211.00	233.00	5	310.0	9.7	10
3KP200A	3KP200CA	200.0	222.00	246.00	5	329.2	9.1	10
3KP210A	3KP210CA	210.0	233.00	258.00	5	349.5	8.6	10
3KP220A	3KP220CA	220.0	244.00	270.00	5	371.1	8.1	10

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

**Curve Characteristics**

Fig. 1 - Peak Pulse Power Rating Curve

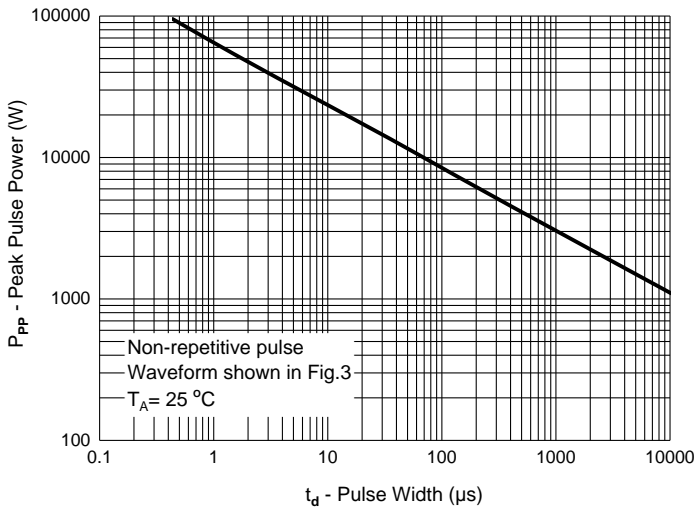


Fig. 2 - Typical Junction Capacitance

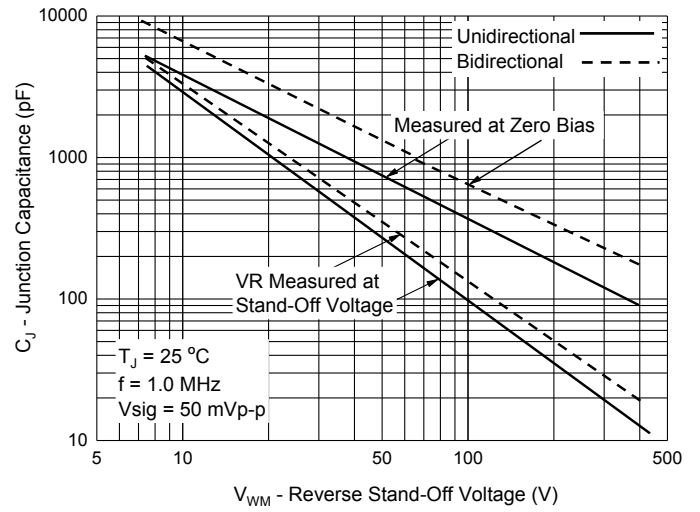


Fig. 3 - Pulse Waveform

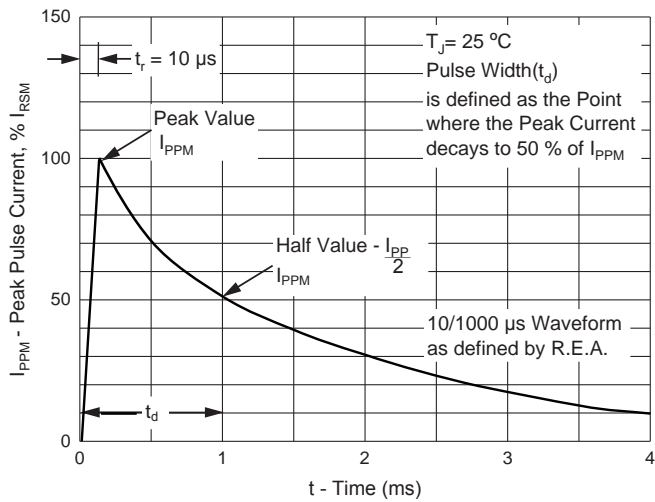
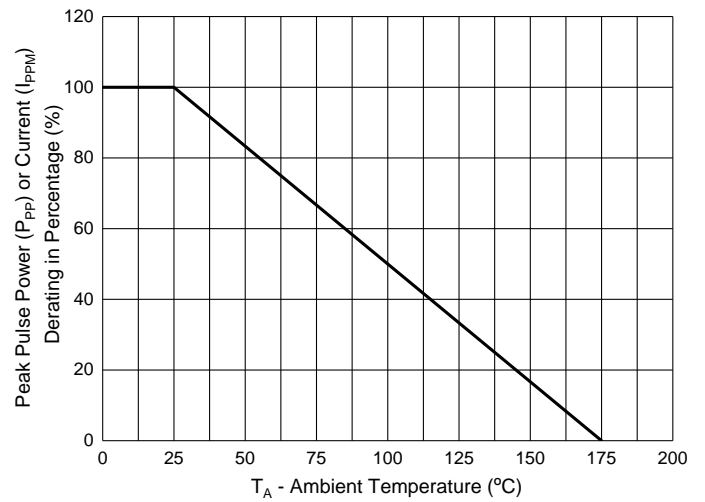


Fig. 4 - Pulse Derating Curve



## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 500pcs/Reel
(Part Number)-AP	Ammo Packing: 450pcs/Ammo Box
(Part Number)-BP	Bulk: 200pcs/Box ;4.8Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

### \*\*\*IMPORTANT NOTICE\*\*\*

**Micro Commercial Components Corp.** reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp.** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp.** and all the companies whose products are represented on our website, harmless against all damages. **Micro Commercial Components Corp.** products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

### \*\*\*LIFE SUPPORT\*\*\*

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

### \*\*\*CUSTOMER AWARENESS\*\*\*

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

## Micro Commercial Components (MCC):

[3KP20A-TP](#) [3KP24A-TP](#) [3KP28A-TP](#) [3KP30A-TP](#) [3KP36A-TP](#) [3KP43A-TP](#) [3KP48A-TP](#) [3KP33A-TP](#) [3KP190A-TP](#) [3KP190CA-TP](#) [3KP100A-TP](#) [3KP100CA-TP](#) [3KP10A-TP](#) [3KP10CA-TP](#) [3KP110A-TP](#) [3KP110CA-TP](#) [3KP85A-TP](#) [3KP85CA-TP](#) [3KP9.0A-TP](#) [3KP9.0CA-TP](#) [3KP90A-TP](#) [3KP90CA-TP](#) [3KP78A-TP](#) [3KP78CA-TP](#) [3KP8.0A-TP](#) [3KP8.0CA-TP](#) [3KP8.5A-TP](#) [3KP8.5CA-TP](#) [3KP7.5A-TP](#) [3KP7.5CA-TP](#) [3KP70A-TP](#) [3KP70CA-TP](#) [3KP75A-TP](#) [3KP75CA-TP](#) [3KP60A-TP](#) [3KP60CA-TP](#) [3KP64A-TP](#) [3KP64CA-TP](#) [3KP7.0A-TP](#) [3KP7.0CA-TP](#) [3KP58A-TP](#) [3KP58CA-TP](#) [3KP6.0A-TP](#) [3KP6.0CA-TP](#) [3KP6.5A-TP](#) [3KP6.5CA-TP](#) [3KP5.0A-TP](#) [3KP5.0CA-TP](#) [3KP51A-TP](#) [3KP51CA-TP](#) [3KP54A-TP](#) [3KP54CA-TP](#) [3KP40A-TP](#) [3KP40CA-TP](#) [3KP43CA-TP](#) [3KP45A-TP](#) [3KP45CA-TP](#) [3KP48CA-TP](#) [3KP26A-TP](#) [3KP26CA-TP](#) [3KP28CA-TP](#) [3KP30CA-TP](#) [3KP33CA-TP](#) [3KP36CA-TP](#) [3KP18A-TP](#) [3KP18CA-TP](#) [3KP20CA-TP](#) [3KP22A-TP](#) [3KP22CA-TP](#) [3KP24CA-TP](#) [3KP16A-TP](#) [3KP16CA-TP](#) [3KP170A-TP](#) [3KP170CA-TP](#) [3KP17A-TP](#) [3KP17CA-TP](#) [3KP150A-TP](#) [3KP150CA-TP](#) [3KP15A-TP](#) [3KP15CA-TP](#) [3KP160A-TP](#) [3KP160CA-TP](#) [3KP130A-TP](#) [3KP130CA-TP](#) [3KP13A-TP](#) [3KP13CA-TP](#) [3KP14A-TP](#) [3KP14CA-TP](#) [3KP11A-TP](#) [3KP11CA-TP](#) [3KP120A-TP](#) [3KP120CA-TP](#) [3KP12A-TP](#) [3KP12CA-TP](#) [3KP180A-TP](#) [3KP180CA-TP](#) [3KP200A-TP](#) [3KP200CA-TP](#) [3KP210A-TP](#) [3KP210CA-TP](#)