



Micro Commercial Components



Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

**3KP5.0(C)(A)
THRU
3KP220(C)(A)**

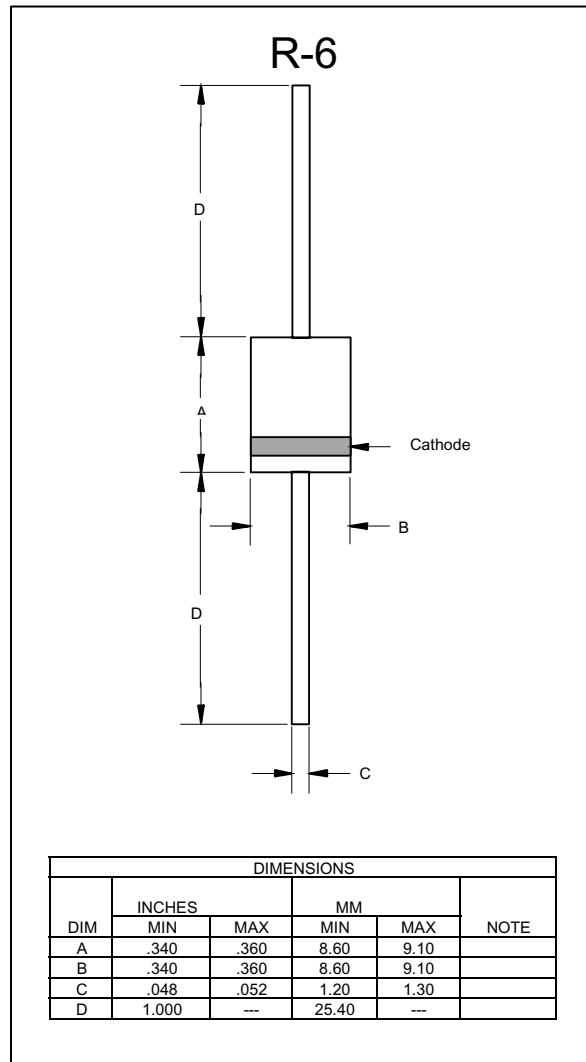
Features

- 3000 Watts Peak Power
- Low Inductance
- Unidirectional and Bidirectional unit
- Voltage Range: 5.0 to 220 Volts.
- UL Recognized File # E331408
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)

Mechanical Data

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Marking : Cathode band(For Uni-directional) and type number
- Suffix "C" of part number denotes Bi-directional unit.
- Halogen free available upon request by adding suffix "-HF"

**3000Watts Transient
Voltage Suppressor
5.0 to 220 Volts**



Electrical Characteristics @ 25°C Unless Otherwise Specified

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000us waveform (Note 2,FIG.1)	P_{PPM}	Minimum 3000	Watts
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 4)	I_{FSM}	300	Amps
Steady State Power Dissipation at $T_L = 75^\circ C$, Lead lengths.375", (9.5mm) (Note 3)	$P_{M(AV)}$	8	Watts
Operating junction and Storage Temperature Range	P_J, T_{STG}	-55 to + 175	$^\circ C$

Notes :

- 1.High Temperature Solder Exemption Applied, see EU Directive Annex 7.
- 2.Non-repetitive current pulse , per Fig. 3 and derated above $T_A = 25$ per Fig. 2 .
- 3.Mounted on Copper Pad area of 1.6jÁ1.6" (40jÁ40mm) per Fig. 5.
- 4.8.3ms single half sine-wave , or equivalent square wave, Duty cycle = 4 pulses per minutes maximum.

3KP Series

3KP 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 IR limit is double.

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

3KP Series

RATINGS AND CHARACTERISTIC CURVES (TA=25°C unless otherwise noted)



Micro Commercial Components

Fig. 1 - Peak Pulse Power Rating Curve

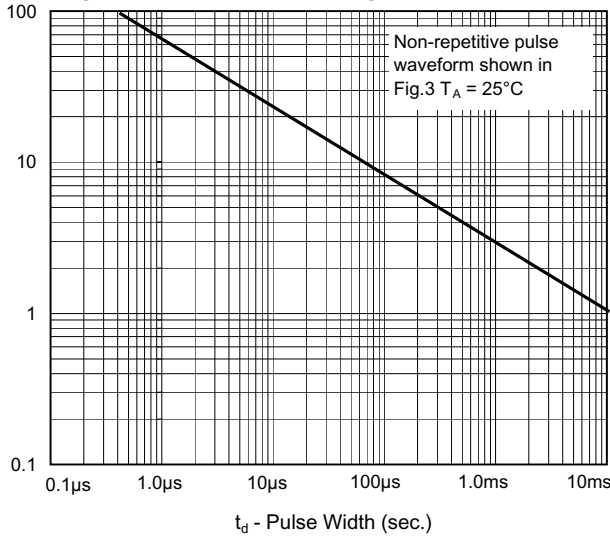


Fig.2 - Pulse Derating Curve

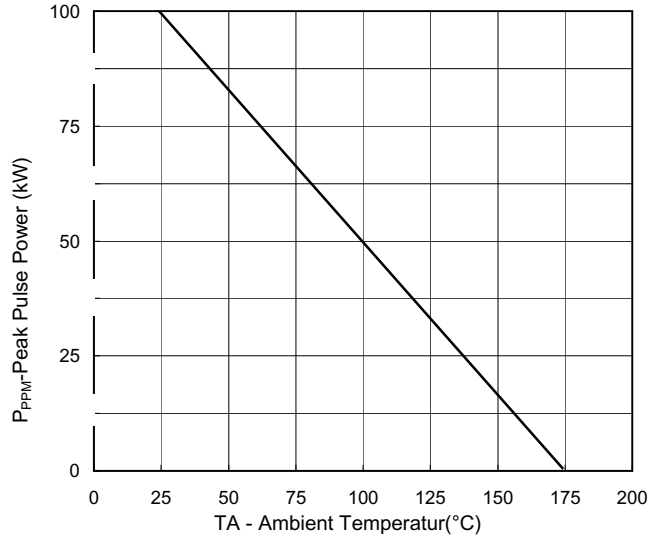


Fig.3 - Pulse Waveform

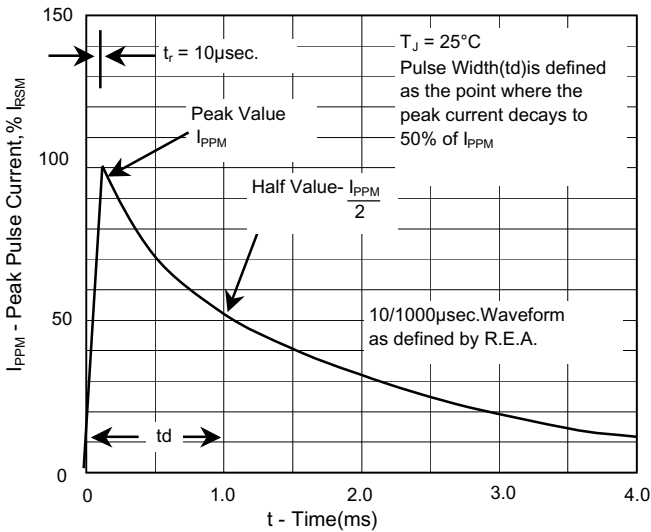


Fig. 4 - Typical Junction Capacitance

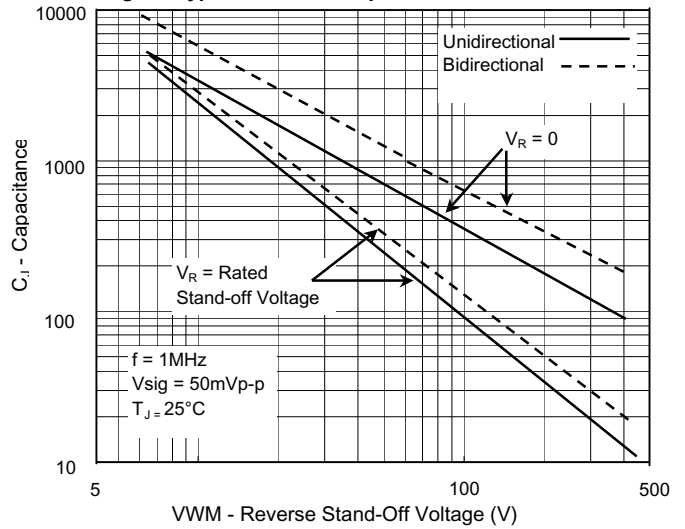


Fig. 5 - Steady State Power Derating Curve

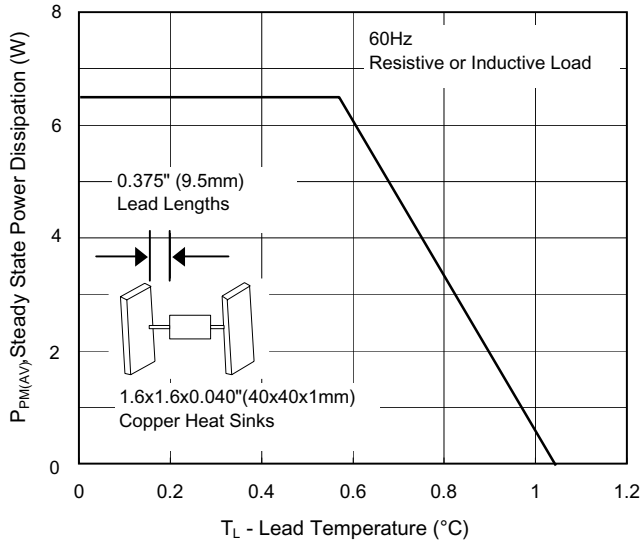
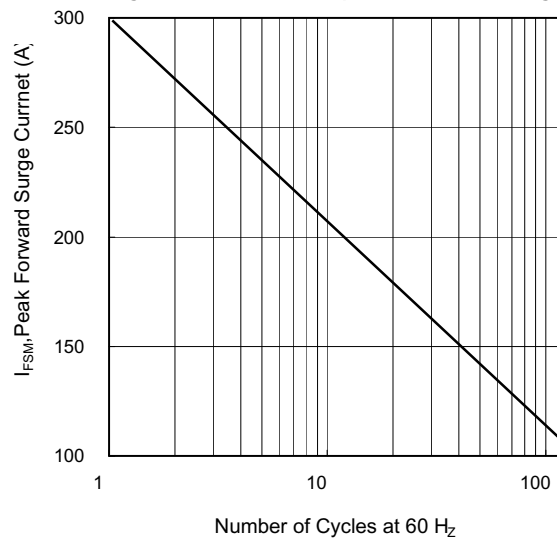


Fig.6 - Maximum Non-repetitive Forward Surge current





Micro Commercial Components

Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 500pcs/Reel
Part Number-AP	Ammo Packing: 450pcs/Ammo Box
Part Number-BP	Bulk: 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.

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.

www.mccsemi.com