3KP5.0(C)A-LF THRU 3KP180(C)A-LF

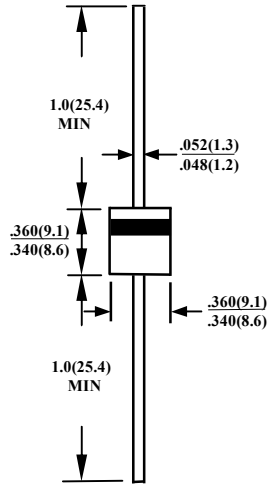
3000W TRANSIENT VOLTAGE SUPPRESSOR

FEATURES

- PLASTIC PACKAGE HAS UNDERWRITERS LABORATORY FLAMMABILITY CLASSIFICATION 94V-0 ..
- EXCEEDS ENVIRONMENTAL STANDARDS MIL-STD-19500
- 5000W SURGE CAPABILITY AT 1ms
- EXCELLENT CLAMPING CAPABILITY
- LOW ZENER IMPEDANCE
- FAST RESPONSE TIME:TYPICALLY LESS THAN 1.0 PS FROM 0 VOLTS TO BV MIN
- TYPICAL IR LESS THAN 1μA ABOVE 10V
- HIGH TEMPERATURE SOLDERING GUARANTEED:260℃/10S /.375″ (9.5mm) LEAD LENGTH/5LBS., (2.3KG) TENSION
- LEAD FREE

MECHANICAL DATA

- CASE：MOLDED PLASTIC OVER GLASS PASSIVATED JUNCTION
- TERMINALS：AXIAL LEADS, SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY：COLOR BAND DENOTED CATHODE EXCEPT BIPOLAR
- WEIGHT：2.1 GRAMS



CASE：P6

DIMENSIONS IN INCHES AND (MILLIMETERS)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED

RATINGS	SYMBOL	VALUE	UNITS
PEAK POWER DISSIPATION AT TA=25℃, TP=1ms(NOTE1)	P_{PK}	MINIMUM 3000	WATTS
PEAK PULSE CURRENT WITH A 10/1000us WAVEFORM(NOTE 1)	I_{PPM}	SEE NEXT TABLE	A
STEADY STATE POWER DISSIPATION AT T_L=75℃, LEAD LENGTHS 0.375" (9.5mm) (NOTE2)	$P_{M(AV)}$	6.5	WATTS
PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD (JEDEC METHOD) (NOTE 3)	I_{FSM}	300	A
OPERATING AND STORAGE TEMPERATURE RANGE	T_J,T_{STG}	- 55 TO + 175	℃

NOTE： 1. NON-REPETITIVE CURRENT PULSE, PER FIG.3 AND DERATED ABOVE TA=25℃ PER FIG 2.

2. MOUNTED ON COPPER PAD AREA OF 1.6x1.6" (40×40mm) PER FIG. 5

3. 8.3ms SINGLE HALF SINE-WAVE, DUTY CYCLE=4 PULSES PER MINUTES MAXIMUM

4. FOR BIDIRECTIONAL USE C SUFFIX FOR 10% TOLERANCE, CA SUFFIX FOR 5% TOLERANCE

DEVICE	BREAKDOWN VOLTAGE V_{BR}(VOLTS) AT I_T		@IT (mA)	WORKING PEAK REVERSE VOLTAGE V_{RWM}(VOLTS)	MAXIMUM REVERSE LEAKAGE AT V_{RWM} IR(μA)	MAXIMUM PEAK PULSE CURRENT I_{PP} (A)	MAXIMUM CLAMPING VOLTAGE V_C @ I_{PP} (VOLTS)
	MIN	MAX					
3KP5.0(C)A-LF	6.40	7.00	50	5.0	2000	326.1	9.20
3KP6.0(C)A-LF	6.67	7.37	50	6.0	5000	291.3	10.3
3KP6.5(C)A-LF	7.22	7.98	50	6.5	2000	267.9	11.2
3KP7.0(C)A-LF	7.78	8.60	50	7.0	1000	250.0	12.0
3KP7.5(C)A-LF	8.33	9.21	5	7.5	250	232.6	12.9
3KP8.0(C)A-LF	8.89	9.83	5	8.0	150	220.6	13.6
3KP8.5(C)A-LF	9.44	10.4	5	8.5	50	208.3	14.4
3KP9.0(C)A-LF	10.0	11.1	5	9.0	20	194.8	15.4
3KP10(C)A-LF	11.1	12.3	5	10.0	15	176.5	17.0
3KP11(C)A-LF	12.2	13.5	5	11.0	10	164.8	18.2
3KP12(C)A-LF	13.3	14.7	5	12.0	10	150.8	19.9
3KP13(C)A-LF	14.4	15.9	5	13.0	10	139.5	21.5
3KP14(C)A-LF	15.6	17.2	5	14.0	10	129.3	23.2
3KP15(C)A-LF	16.7	18.5	5	15.0	10	123.0	24.4
3KP16(C)A-LF	17.8	19.7	5	16.0	10	115.4	26.0
3KP17(C)A-LF	18.9	20.9	5	17.0	10	108.7	27.6
3KP18(C)A-LF	20.0	22.1	5	18.0	10	102.7	29.2
3KP20(C)A-LF	22.2	24.5	5	20.0	10	92.6	32.4
3KP22(C)A-LF	24.4	26.9	5	22.0	10	84.5	35.5
3KP24(C)A-LF	26.7	29.5	5	24.0	10	77.1	38.9
3KP26(C)A-LF	28.9	31.9	5	26.0	10	71.3	42.1
3KP28(C)A-LF	31.1	34.4	5	28.0	10	66.1	45.4
3KP30(C)A-LF	33.3	36.8	5	30.0	10	62.0	48.4
3KP33(C)A-LF	36.7	40.6	5	33.0	10	56.3	53.3
3KP36(C)A-LF	40.0	44.2	5	36.0	10	51.6	58.1
3KP40(C)A-LF	44.4	49.1	5	40.0	10	46.5	64.5
3KP43(C)A-LF	47.8	52.8	5	43.0	10	43.2	69.4
3KP45(C)A-LF	50.0	55.3	5	45.0	10	41.3	72.7
3KP48(C)A-LF	53.3	58.9	5	48.0	10	38.8	77.4
3KP51(C)A-LF	56.7	62.7	5	51.0	10	36.4	82.4
3KP54(C)A-LF	60.0	66.3	5	54.0	10	34.4	87.1
3KP58(C)A-LF	64.4	71.2	5	58.0	10	32.1	93.6
3KP60(C)A-LF	66.7	73.7	5	60.0	10	31.0	96.8
3KP64(C)A-LF	71.1	78.6	5	64.0	10	29.1	103.0
3KP70(C)A-LF	77.8	86.0	5	70.0	10	26.5	113.0
3KP75(C)A-LF	83.3	92.1	5	75.0	10	24.8	121.0
3KP78(C)A-LF	86.7	95.8	5	78.0	10	23.8	126.0
3KP85(C)A-LF	94.4	104	5	85.0	10	21.9	137.0
3KP90(C)A-LF	100	111	5	90.0	10	20.5	146.0
3KP100(C)A-LF	111	123	5	100	10	18.5	162.0
3KP110(C)A-LF	122	135	5	110	10	16.9	177.0
3KP120(C)A-LF	133	147	5	120	10	15.5	193.0
3KP130(C)A-LF	144	159	5	130	10	14.4	209.0
3KP150(C)A-LF	167	185	5	150	10	12.3	243.0
3KP160(C)A-LF	178	197	5	160	10	11.6	259.0
3KP170(C)A-LF	189	209	5	170	10	10.9	275.0
3KP180(C)A-LF	200	221	5	180	10	10.4	289.0

NOTES： 1. V_{BR} MEASURED AFTER I_T APPLIED FOR 300 mS, I_T=SQUARE WAVE PULSE OR EQUIVALENT

2. SURGE CURRENT WAVEFORM PER FIGURE 3 AND DERATED PER FIGURE 2.

3. V_F = 3.5 VOLTS MAX IF=100A FOR ALL TYPES ON 1/2 SQUARE OR EQUIVALENT SINE WAVE. PW = 8.3ms, DUTY CYCLE=4 PULSE PER MINUTE MXIMUM

4. FOR BIPOLAR TYPE V_R 10VOLTS AND UNDER , THE I_R LIMIT IS DOUBLED