GLASS PASSIVATED
UNIDIRECTIONAL AND BIDIRECTIONAL
TRANSIENT VOLTAGE SUPPRESSORS

REVERSE VOLTAGE - 6.8 to 60VOLTS
FORWARD CURRENT - 400 Amperes

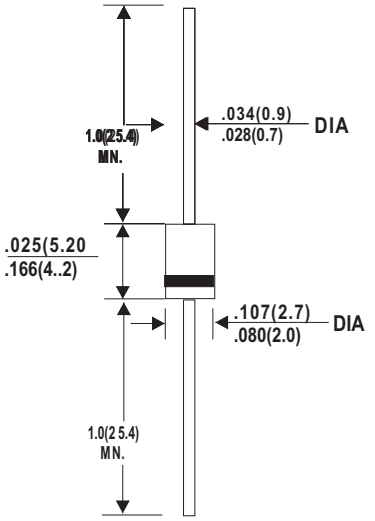
FEATURES

- Low Leakage
- Uni and Bidirectional unit
- Excellent clamping capability
- Plastic material has UL recognition 94V-0
- Fast response time

MECHANICAL DATA

- Case: Molded Plastic
- Marking: Unidirectional - type number and cathode band
  Bidirectional - type number only
- Weight: 0.34 grams

DO-41



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 ℃ ambient temperaature unless otherwise specified
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	VALUE	UNIT
Peak Power Dissipation at T_A=25 ℃ TP=1ms(Note 1)	P_{PK}	Minimum 400	WATTS
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I_{FSM}	40	AMPS
Steady State Power Dissipation at TL=75 ℃ lead lengths 0.375 (9.5mm), see Fig.4	$P_{M(AV)}$	1.0	WATTS
Maximum Instantaneous forward voltage at 25A for unidirectional devices only (Note 2)	V_F	See Note 3	VOLTS
Operating Temperature Range	T_J	-55 to +125	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

NOTES:1. Non-repetitive current pulse, per Fig. 5 and derated above T_A=25 ℃ per Fig. 1.
2. 8.3ms single half sine-wave duty cycle=4 pulses per minutes maximum (uni-directional units only).
V_F=3.5V on P4KE6.8 thru P4KE200A devices and V_F=5.0V on P4KE220 thru P4KE400A devices.

FIG. 1 - PULSE DERATING CURVE

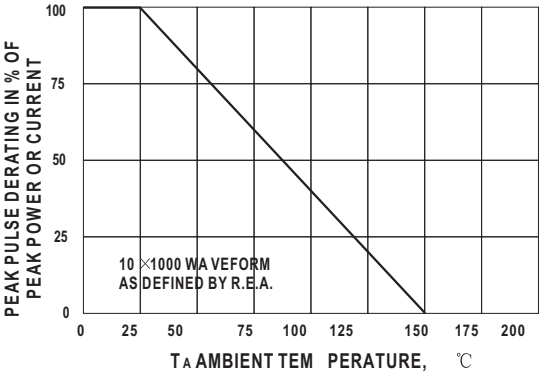


FIG. 2 - TYPICAL JUNCTION CAPACITANCE

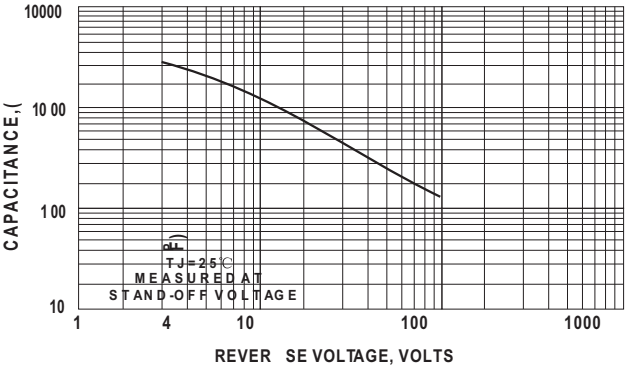


FIG. 3 - PULSE RATING CURVE

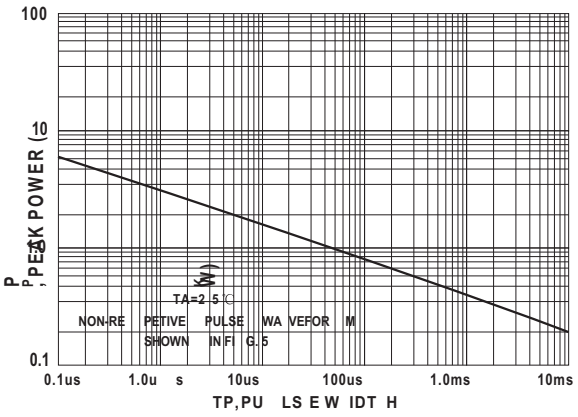


FIG. 4 - STEADY STATE POWER DERATING CURVE

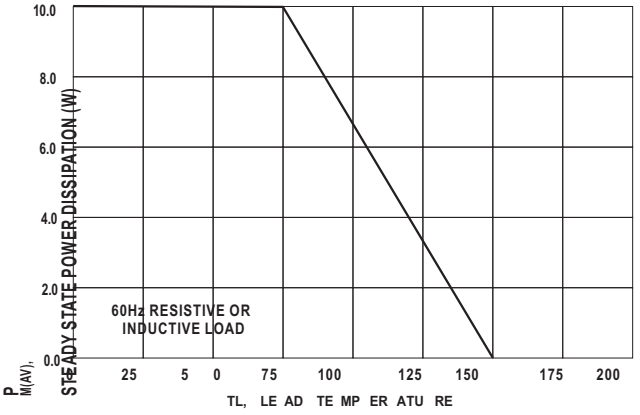
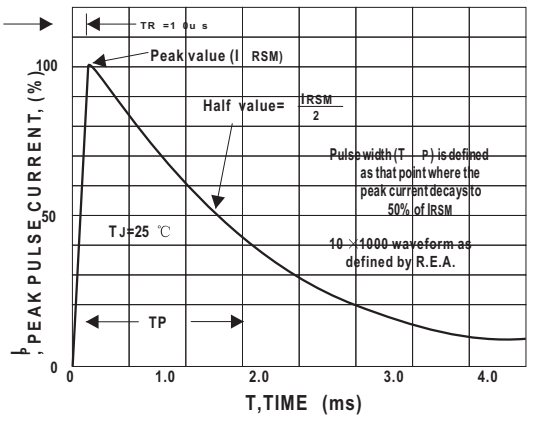


FIG.5 - PULSE WAVEFORM



Type Number	Type Number	Reverse Standoff Voltage	Breakdown Voltage BVoMts @It			Max. Reverse Leakage @VR	Max. Clamping Voltge @VR	Max. Peak Pulse Current	Max. VOLTAGE Temp Variation Of Bv
(UNI)	(BI)	VP(V)	Min(v)	Max(v)	It(mA)	IR(uA)	Vc(v)	Ipp(A)	%/ ℃
P4KE6.8	P4KE6.8C	5.50	6.12	7.48	10	1000	10.8	38.00	0.057
P4KE6.8A	P4KE6.8CA	5.80	6.45	7.14	10	1000	10.5	40.00	0.057
P4KE7.5	P4KE7.5C	6.05	6.75	8.25	10	500	11.7	35.00	0.061
P4KE7.5A	P4KE7.5CA	6.40	7.13	7.88	10	500	11.3	37.00	0.061
P4KE8.2	P4KE8.2C	6.63	7.38	9.02	10	200	12.5	33.00	0.065
P4KE8.2A	P4KE8.2CA	7.02	7.79	8.61	10	200	12.1	34.00	0.065
P4KE9.1	P4KE9.1C	7.37	8.19	10.00	1	50	13.8	30.00	0.068
P4KE9.1A	P4KE9.1CA	7.78	8.65	9.55	1	50	13.4	31.00	0.068
P4KE10	P4KE10C	8.10	9.00	11.00	1	10	15.0	28.00	0.073
P4KE10A	P4KE10CA	8.55	9.50	10.50	1	10	14.5	29.00	0.073
P4KE11	P4KE11C	8.92	9.90	12.10	1	5	16.2	26.00	0.075
P4KE11A	P4KE11CA	9.40	10.50	11.60	1	5	15.6	27.00	0.075
P4KE12	P4KE12C	9.72	10.80	13.20	1	5	17.3	24.00	0.078
P4KE12A	P4KE12CA	10.20	11.40	12.60	1	5	16.7	25.00	0.078
P4KE13	P4KE13C	10.5	11.7	14.3	1	5	19.0	22.00	0.081
P4KE13A	P4KE13CA	11.1	12.4	13.7	1	5	18.2	23.00	0.081
P4KE15	P4KE15C	12.1	13.5	16.5	1	5	22.0	19.00	0.084
P4KE15A	P4KE15CA	12.8	14.3	15.8	1	5	21.5	20.00	0.084
P4KE16	P4KE16C	12.9	14.4	17.6	1	5	23.5	17.80	0.086
P4KE16A	P4KE16CA	13.6	15.2	16.8	1	5	22.5	18.60	0.086
P4KE18	P4KE18C	14.5	16.6	19.8	1	5	26.5	16.00	0.088
P4KE18A	P4KE18CA	15.3	17.1	18.9	1	5	25.6	16.50	0.088
P4KE20	P4KE20C	16.2	18.0	22.0	1	5	29.1	14.00	0.090
P4KE20A	P4KE20CA	17.1	19.0	21.0	1	5	27.7	15.00	0.090
P4KE22	P4.KE22C	17.8	19.8	24.2	1	5	31.9	13.00	0.092
P4KE22A	P4KE22CA	18.8	20.9	23.1	1	5	30.6	13.70	0.092
P4KE24	P4KE24C	19.4	21.6	26.4	1	5	34.7	12.00	0.094
P4KE24A	P4KE24CA	20.5	22.8	25.2	1	5	33.2	12.60	0.094
P4KE27	P4KE27C	21.8	24.3	29.7	1	5	39.1	10.70	0.096
P4KE27A	P4KE27CA	23.1	25.7	28.4	1	5	37.5	11.00	0.096
P4KE30	P4KE30C	24.3	27.0	33.0	1	5	43.5	9.60	0.097
P4KE30A	P4KE30CA	25.6	28.5	31.5	1	5	41.4	10.00	0.097
P4KE33	P4KE33C	26.8	29.7	36.3	1	5	47.7	8.80	0.098
P4KE33A	P4KE33CA	28.2	31.4	34.7	1	5	45.7	9.00	0.098
P4KE36	P4KE36C	29.1	32.4	39.6	1	5	52.0	8.00	0.099
P4KE36A	P4KE36CA	30.8	34.2	37.8	1	5	49.9	8.40	0.099
P4KE39	P4KE39C	31.6	35.1	42.9	1	5	56.4	7.40	0.100
P4KE39A	P4KE39CA	33.3	37.1	41.0	1	5	53.9	7.70	0.100
P4KE43	P4KE43C	34.8	38.7	47.3	1	5	61.9	6.70	0.101
P4KE43A	P4KE43CA	36.8	40.9	45.2	1	5	59.3	7.00	0.101
P4KE47	P4KE47C	38.1	42.3	51.7	1	5	67.8	6.20	0.101
P4KE47A	P4KE47CA	40.2	44.7	49.4	1	5	64.8	6.40	0.101
P4KE51	P4KE51C	41.3	45.9	56.1	1	5	73.5	5.70	0.102
P4KE51A	P4KE51CA	43.6	48.5	53.6	1	5	70.1	6.00	0.102
P4KE56	P4KE56C	45.4	50.4	61.6	1	5	80.5	5.20	0.103
P4KE56A	P4KE56CA	47.8	53.2	58.8	1	5	77.0	5.40	0.103

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(UNI)	(BI)	VP(V)	Min(v)	Max(v)	It(mA)	IR(uA)	Vc(v)	Ipp(A)	%/℃
P4KE6.8	P4KE6.8C	5.50	6.12	7.48	10	1000	10.8	38.00	0.057
P4KE6.8A	P4KE6.8CA	5.80	6.45	7.14	10	1000	10.5	40.00	0.057
P4KE7.5	P4KE7.5C	6.05	6.75	8.25	10	500	11.7	35.00	0.061
P4KE7.5A	P4KE7.5CA	6.40	7.13	7.88	10	500	11.3	37.00	0.061
P4KE8.2	P4KE8.2C	6.63	7.38	9.02	10	200	12.5	33.00	0.065
P4KE8.2A	P4KE8.2CA	7.02	7.79	8.61	10	200	12.1	34.00	0.065
P4KE9.1	P4KE9.1C	7.37	8.19	10.00	1	50	13.8	30.00	0.068
P4KE9.1A	P4KE9.1CA	7.78	8.65	9.55	1	50	13.4	31.00	0.068
P4KE10	P4KE10C	8.10	9.00	11.00	1	10	15.0	28.00	0.073
P4KE10A	P4KE10CA	8.55	9.50	10.50	1	10	14.5	29.00	0.073
P4KE11	P4KE11C	8.92	9.90	12.10	1	5	16.2	26.00	0.075
P4KE11A	P4KE11CA	9.40	10.50	11.60	1	5	15.6	27.00	0.075
P4KE12	P4KE12C	9.72	10.80	13.20	1	5	17.3	24.00	0.078
P4KE12A	P4KE12CA	10.20	11.40	12.60	1	5	16.7	25.00	0.078
P4KE13	P4KE13C	10.5	11.7	14.3	1	5	19.0	22.00	0.081
P4KE13A	P4KE13CA	11.1	12.4	13.7	1	5	18.2	23.00	0.081
P4KE15	P4KE15C	12.1	13.5	16.5	1	5	22.0	19.00	0.084
P4KE15A	P4KE15CA	12.8	14.3	15.8	1	5	21.5	20.00	0.084
P4KE16	P4KE16C	12.9	14.4	17.6	1	5	23.5	17.80	0.086
P4KE16A	P4KE16CA	13.6	15.2	16.8	1	5	22.5	18.60	0.086
P4KE18	P4KE18C	14.5	16.6	19.8	1	5	26.5	16.00	0.088
P4KE18A	P4KE18CA	15.3	17.1	18.9	1	5	25.6	16.50	0.088
P4KE20	P4KE20C	16.2	18.0	22.0	1	5	29.1	14.00	0.090
P4KE20A	P4KE20CA	17.1	19.0	21.0	1	5	27.7	15.00	0.090
P4KE22	P4.KE22C	17.8	19.8	24.2	1	5	31.9	13.00	0.092
P4KE22A	P4KE22CA	18.8	20.9	23.1	1	5	30.6	13.70	0.092
P4KE24	P4KE24C	19.4	21.6	26.4	1	5	34.7	12.00	0.094
P4KE24A	P4KE24CA	20.5	22.8	25.2	1	5	33.2	12.60	0.094
P4KE27	P4KE27C	21.8	24.3	29.7	1	5	39.1	10.70	0.096
P4KE27A	P4KE27CA	23.1	25.7	28.4	1	5	37.5	11.00	0.096
P4KE30	P4KE30C	24.3	27.0	33.0	1	5	43.5	9.60	0.097
P4KE30A	P4KE30CA	25.6	28.5	31.5	1	5	41.4	10.00	0.097
P4KE33	P4KE33C	26.8	29.7	36.3	1	5	47.7	8.80	0.098
P4KE33A	P4KE33CA	28.2	31.4	34.7	1	5	45.7	9.00	0.098
P4KE36	P4KE36C	29.1	32.4	39.6	1	5	52.0	8.00	0.099
P4KE36A	P4KE36CA	30.8	34.2	37.8	1	5	49.9	8.40	0.099
P4KE39	P4KE39C	31.6	35.1	42.9	1	5	56.4	7.40	0.100
P4KE39A	P4KE39CA	33.3	37.1	41.0	1	5	53.9	7.70	0.100
P4KE43	P4KE43C	34.8	38.7	47.3	1	5	61.9	6.70	0.101
P4KE43A	P4KE43CA	36.8	40.9	45.2	1	5	59.3	7.00	0.101
P4KE47	P4KE47C	38.1	42.3	51.7	1	5	67.8	6.20	0.101
P4KE47A	P4KE47CA	40.2	44.7	49.4	1	5	64.8	6.40	0.101
P4KE51	P4KE51C	41.3	45.9	56.1	1	5	73.5	5.70	0.102
P4KE51A	P4KE51CA	43.6	48.5	53.6	1	5	70.1	6.00	0.102
P4KE56	P4KE56C	45.4	50.4	61.6	1	5	80.5	5.20	0.103
P4KE56A	P4KE56CA	47.8	53.2	58.8	1	5	77.0	5.40	0.103