

TVS P4FMAJ SERIES

GPP TRANSIENT VOLTAGE SUPPRESSOR 400 WATT PEAK POWER 1.0 WATT STEADY STATE

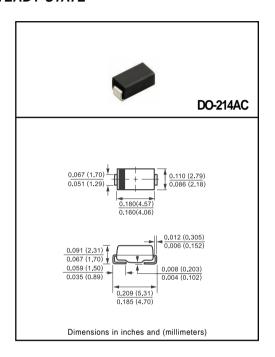
FEATURES

- * Plastic package has underwriters laboratory
- * Glass passivated chip construction
- * 400 watt surage capability at 1ms
- * Excellent clamping capability
- * Low zener impedance
- * Fast response time

Ratings at 25 °C ambient temperature unless otherwise specified.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.



DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA suffix for types P4FMAJ6.8 thru P4FMAJ400 Electrical characteristics apply in both direction

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	VALUE	UNITS
Peak Power Dissipation at TA = 25°C, TP = 1mS (Note 1)	РРРМ	Minimum 400	Watts
Peak Pulse Current with a 10/1000uS waveform (Note 1, Fig.3)	ІРРМ	SEE TABLE 1	Amps
Steady State Power Dissipation at T _L = 75°C (Note 2)	PM(AV)	1.0	Watts
Peak Forward Surge Current, 8.3mS single half sine wave- superimposed on rated load (JEDEC METHOD) (Note 3)	IFSM	40	Amps
Maximum Instantaneous Forward Voltage at 25A for unidirectional only (Note 4)	VF	3.5/6.5	Volts
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 175	٥C

NOTES: 1. Non-repetitive current pulse, per Fig.3 and derated above TA = 25°C per Fig.2.

- 2. Mounted on 0.2 X 0.2" (5.0 X 5.0mm) copper pad to each terminal.
- 3. Measured on 8.3mS single half Sine-Wave or equivalent wave, duty cycle = 4 pulses per minute maximum.
- 4. VF = 3.0V max. for devices of V(BR) < 200V and VF = 5.0V max. for devices of V(BR) ≥ 200V.

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RATING AND CHARACTERISTIC CURVES (P4FMAJ6.8 THRU P4FMAJ400CA)

FIG. 1 - PEAK PULSE POWER RATING CURVE

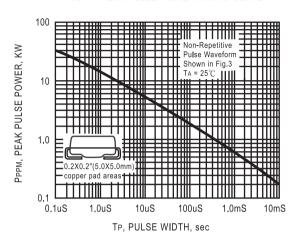


FIG. 2 - PULSE DERATING CURVE

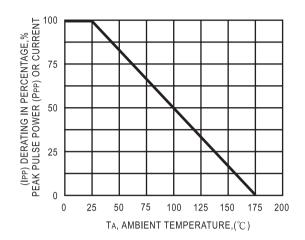


FIG. 3 - PULSE WAVEFORM

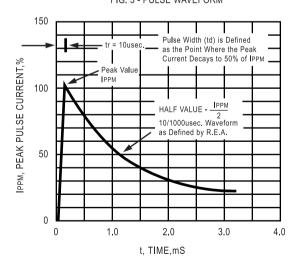
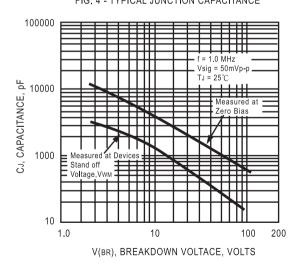


FIG. 4 - TYPICAL JUNCTION CAPACITANCE



RATING AND CHARACTERISTIC CURVES (P4FMAJ6.8 THRU P4FMAJ400CA)

FIG. 5 - STEADY STATE POWER DERATING CURVE

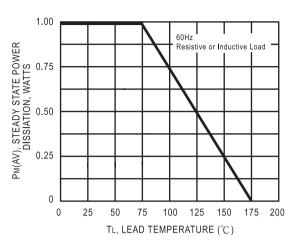


FIG. 6 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT UNIDIRECTIONAL

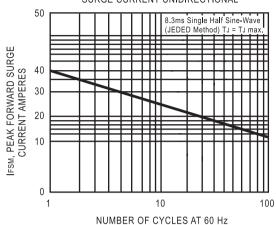
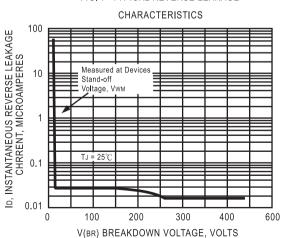


FIG. 7 - TYPICAL REVERSE LEAKAGE





TRANSIENT VOLTAGE SUPPRESSORS

400W SERIES TVS DIODES / DO-214AC (CASE 2) 400W

TYPE (Volts) @IT voltage takyw Perm taking at Vwin (Amps) with IPM (Amps) with IPM (Volts) (Volts) (Volts) (Volts) (Amps) with IPM (Amps) with IPM (Amps) with IPM (Amps) with IPM (Volts) (Volts) (Volts) (Volts) (Amps) with IPM (Amps) with		Brea	akdown	Voltage	Reverse	Maximum	Maximum	Maximum
P4FMAJ6.8 6.12 7.48 10 5.50 1000 38 10.8 P4FMAJ6.8A 6.45 7.14 10 5.50 1000 40 10.5 P4FMAJ7.5 6.75 8.25 10 6.05 500 35 11.7 P4FMAJ7.5A 7.13 7.88 10 6.40 500 37 11.3 P4FMAJ8.2 7.38 9.02 10 6.63 200 33 12.5 P4FMAJ9.1 8.19 10.0 1.0 7.02 200 34 12.5 P4FMAJ9.1 8.19 10.0 1.0 7.37 50 30 13.8 P4FMAJ10.1 9.00 11.0 1.0 7.78 50 30 13.8 P4FMAJ10.9 9.01 11.0 1.0 8.15 10 29 14.5 P4FMAJ10.9 9.00 11.0 1.0 8.92 5.0 26 16.2 P4FMAJ10.9 10.5 1.0	TYPE			@Іт				
P4FMAJ6.8A		MIN.	MAX.	(mA)				at IPPM VC (Volts)
PAFMAJ7.5	P4FMAJ6.8	6.12	7.48	10	5.50	1000	38	10.8
PAFMAJ1.5A	P4FMAJ6.8A	6.45	7.14	10	5.80	1000	40	10.5
PAFMAJ8.2	P4FMAJ7.5	6.75	8.25	10	6.05	500	35	11.7
P4FMAJ9.1	P4FMAJ7.5A	7.13	7.88	10	6.40	500	37	11.3
PAFMAJ9.1A 8.19 10.0 1.0 7.37 50 30 13.8 PAFMAJ9.1A 8.69 9.55 1.0 7.78 50 31 13.4 PAFMAJ10 9.00 11.0 1.0 8.10 10 28 15.0 PAFMAJ10A 9.50 10.5 1.0 8.55 10 29 14.5 PAFMAJ11 9.90 12.1 1.0 8.92 5.0 26 16.2 PAFMAJ11 10.5 11.6 1.0 9.40 5.0 27 15.6 PAFMAJ12 10.8 13.2 1.0 9.72 5.0 24 17.3 PAFMAJ12A 11.4 12.6 1.0 10.2 5.0 25 16.7 PAFMAJ13 11.7 14.3 1.0 10.5 5.0 22 19.0 PAFMAJ13 12.4 13.7 1.0 11.1 5.0 23 18.2 PAFMAJ15 13.5 16.5 1.0 12.1 5.0 23 18.2 PAFMAJ16 14.4 17.6 1.0 12.8 5.0 20 21.2 PAFMAJ16 14.4 17.6 1.0 12.9 5.0 17.8 23.5 PAFMAJ18 16.2 19.8 1.0 14.5 5.0 16.5 25.5 PAFMAJ18 17.1 18.9 1.0 15.3 5.0 16.5 25.5 PAFMAJ18 17.1 18.9 1.0 15.3 5.0 16.5 25.5 PAFMAJ20 18.0 22.0 1.0 16.2 5.0 14 29.1 PAFMAJ22 19.8 24.2 1.0 17.8 5.0 13.7 30.6 PAFMAJ24 21.6 26.4 1.0 19.4 5.0 12 34.7 PAFMAJ24 22.8 25.2 1.0 20.5 5.0 12.6 33.2 PAFMAJ24 21.6 26.4 1.0 24.3 5.0 9.6 43.5 PAFMAJ30 27.0 33.0 1.0 24.3 5.0 9.6 43.5 PAFMAJ30 37.1 41.0 1.0 33.3 5.0 7.7 53.9 PAFMAJ30 37.1 41.0 1.0 33.3 5.0 7.0 59.3 PAFMAJ30 37.1 47.3 1.0 34.8 5.0 6.7 61.9 PAFMAJ31 38.7 47.3 1.0 34.8 5.0 6.7 61.9 PAFMAJ31 38.7 47.3 1.0 34.8 5.0	P4FMAJ8.2	7.38	9.02	10	6.63	200	33	12.5
PAFMAJ9.1A 8.19 10.0 1.0 7.37 50 30 13.8 PAFMAJ9.1A 8.69 9.55 1.0 7.78 50 31 13.4 PAFMAJ10 9.00 11.0 1.0 8.10 10 28 15.0 PAFMAJ10A 9.50 10.5 1.0 8.55 10 29 14.5 PAFMAJ11 9.90 12.1 1.0 8.92 5.0 26 16.2 PAFMAJ11 10.5 11.6 1.0 9.40 5.0 27 15.6 PAFMAJ12 10.8 13.2 1.0 9.72 5.0 24 17.3 PAFMAJ12A 11.4 12.6 1.0 10.2 5.0 25 16.7 PAFMAJ13 11.7 14.3 1.0 10.5 5.0 22 19.0 PAFMAJ13 12.4 13.7 1.0 11.1 5.0 23 18.2 PAFMAJ15 13.5 16.5 1.0 12.1 5.0 23 18.2 PAFMAJ16 14.4 17.6 1.0 12.8 5.0 20 21.2 PAFMAJ16 14.4 17.6 1.0 12.9 5.0 17.8 23.5 PAFMAJ18 16.2 19.8 1.0 14.5 5.0 16.5 25.5 PAFMAJ18 17.1 18.9 1.0 15.3 5.0 16.5 25.5 PAFMAJ18 17.1 18.9 1.0 15.3 5.0 16.5 25.5 PAFMAJ20 18.0 22.0 1.0 16.2 5.0 14 29.1 PAFMAJ22 19.8 24.2 1.0 17.8 5.0 13.7 30.6 PAFMAJ24 21.6 26.4 1.0 19.4 5.0 12 34.7 PAFMAJ24 22.8 25.2 1.0 20.5 5.0 12.6 33.2 PAFMAJ24 21.6 26.4 1.0 24.3 5.0 9.6 43.5 PAFMAJ30 27.0 33.0 1.0 24.3 5.0 9.6 43.5 PAFMAJ30 37.1 41.0 1.0 33.3 5.0 7.7 53.9 PAFMAJ30 37.1 41.0 1.0 33.3 5.0 7.0 59.3 PAFMAJ30 37.1 47.3 1.0 34.8 5.0 6.7 61.9 PAFMAJ31 38.7 47.3 1.0 34.8 5.0 6.7 61.9 PAFMAJ31 38.7 47.3 1.0 34.8 5.0	P4FMAJ8.2A	7.79	8.61	10	7.02	200	34	12.1
P4FMAJ10 9.00 11.0 1.0 8.10 10 28 15.0 P4FMAJ10A 9.50 10.5 1.0 8.55 10 29 14.5 P4FMAJ11A 9.90 12.1 1.0 8.92 5.0 26 16.2 P4FMAJ11A 10.5 11.6 1.0 9.40 5.0 27 15.6 P4FMAJ12A 11.4 12.6 1.0 10.2 5.0 24 17.3 P4FMAJ13 11.7 14.3 1.0 10.5 5.0 22 19.0 P4FMAJ13 11.7 14.3 1.0 10.5 5.0 22 19.0 P4FMAJ15A 12.4 13.7 1.0 11.1 5.0 23 18.2 P4FMAJ16A 14.3 15.8 1.0 12.8 5.0 20 21.2 P4FMAJ16A 14.3 15.8 1.0 12.9 5.0 17.8 23.5 P4FMAJ18A 16.2 16.8	P4FMAJ9.1	8.19	10.0	1.0	7.37	50	30	
P4FMAJ10A 9.50 10.5 1.0 8.55 10 29 14.5 P4FMAJ11 9.90 12.1 1.0 8.92 5.0 26 16.2 P4FMAJ12 10.8 13.2 1.0 9.72 5.0 24 17.3 P4FMAJ12 10.8 13.2 1.0 9.72 5.0 24 17.3 P4FMAJ13 11.7 14.3 1.0 10.5 5.0 25 16.7 P4FMAJ13 11.7 14.3 1.0 10.5 5.0 22 19.0 P4FMAJ13 12.4 13.7 1.0 11.1 5.0 23 18.2 P4FMAJ15 13.5 16.5 1.0 12.1 5.0 19 22.0 P4FMAJ16 14.3 15.8 1.0 12.8 5.0 20 21.2 P4FMAJ16 14.4 17.6 1.0 12.9 5.0 17.8 23.5 P4FMAJ18 15.2 16.8 1.0 13.6 5.0 18.6 22.5 P4FMAJ18 15.2 16.8 1.0 14.5 5.0 16.5 25.2 P4FMAJ18 17.1 18.9 1.0 14.5 5.0 16.5 25.2 P4FMAJ20 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ20 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ22 19.8 24.2 1.0 17.1 5.0 13.3 31.9 P4FMAJ24 22.8 25.2 1.0 18.8 5.0 13.3 31.9 P4FMAJ24 22.8 25.2 1.0 20.5 5.0 13.3 31.9 P4FMAJ27 24.3 29.7 1.0 24.3 5.0 10.7 39.1 P4FMAJ27 25.7 28.4 1.0 24.3 5.0 10.7 39.1 P4FMAJ33 29.7 36.3 1.0 24.3 5.0 5.0 37.5 P4FMAJ30 27.0 33.0 1.0 24.3 5.0 5.0 38.8 47.7 P4FMAJ30 28.5 31.5 1.0 26.8 5.0 8.8 47.7 P4FMAJ30 38.7 47.3 1.0 38.8 5.0 5.0 6.7 61.9 P4FMAJ30 38.7 47.3 1.0 38.8 5.0 5.0 7.7 P4FMAJ30 37.1 41.0 30.8 5.0 5.0 6.7 61.9 P4FMAJ30 38.7 47.3 1.0 38.8 5.0 5.0 7.7 53.9 P4FMAJ40 42.3 51.7 1.0 38.8 5.0 5.0 5.7 73.5 P4FMAJ41 44.5 53.6 1.0 40.2 5.0 6.0 6.0 70.1	P4FMAJ9.1A	8.69	9.55	1.0	7.78	50	31	13.4
P4FMAJ11	P4FMAJ10	9.00	11.0	1.0	8.10	10	28	15.0
P4FMAJ12A	P4FMAJ10A	9.50	10.5	1.0	8.55	10	29	14.5
P4FMAJ12 10.8 13.2 1.0 9.72 5.0 24 17.3 P4FMAJ12A 11.4 12.6 1.0 10.2 5.0 25 16.7 P4FMAJ13 11.7 14.3 1.0 10.5 5.0 22 19.0 P4FMAJ13A 12.4 13.7 1.0 11.1 5.0 23 18.2 P4FMAJ15 13.5 16.5 1.0 12.1 5.0 19 22.0 P4FMAJ16A 14.3 15.8 1.0 12.8 5.0 20 21.2 P4FMAJ16A 14.3 15.8 1.0 12.9 5.0 17.8 23.5 P4FMAJ16A 15.2 16.8 1.0 13.6 5.0 18.6 22.5 P4FMAJ18A 16.2 19.8 1.0 14.5 5.0 16.5 25.2 P4FMAJ20A 19.0 21.0 1.0 16.2 5.0 14 29.1 P4FMAJ22A 19.8 24.2	P4FMAJ11	9.90	12.1	1.0	8.92	5.0	26	16.2
P4FMAJ12A 11.4 12.6 1.0 10.2 5.0 25 16.7 P4FMAJ13 11.7 14.3 1.0 10.5 5.0 22 19.0 P4FMAJ13A 12.4 13.7 1.0 11.1 5.0 23 18.2 P4FMAJ15 13.5 16.5 1.0 12.1 5.0 19 22.0 P4FMAJ16A 14.3 15.8 1.0 12.8 5.0 20 21.2 P4FMAJ16A 14.4 17.6 1.0 12.9 5.0 17.8 23.5 P4FMAJ16A 15.2 16.8 1.0 12.9 5.0 17.8 23.5 P4FMAJ18A 15.2 16.8 1.0 14.5 5.0 16 26.5 P4FMAJ21BA 17.1 18.9 1.0 15.3 5.0 16.5 25.2 P4FMAJ20A 19.0 21.0 16.2 5.0 14 29.1 P4FMAJ22A 20.9 23.1 1.0	P4FMAJ11A	10.5	11.6	1.0	9.40	5.0	27	15.6
P4FMAJ13 11.7 14.3 1.0 10.5 5.0 22 19.0 P4FMAJ13A 12.4 13.7 1.0 11.1 5.0 23 18.2 P4FMAJ15 13.5 16.5 1.0 12.1 5.0 19 22.0 P4FMAJ15A 14.3 15.8 1.0 12.8 5.0 20 21.2 P4FMAJ16A 14.4 17.6 1.0 12.9 5.0 17.8 23.5 P4FMAJ18A 15.2 16.8 1.0 13.6 5.0 18.6 22.5 P4FMAJ18A 16.2 19.8 1.0 14.5 5.0 16 26.5 P4FMAJ2BA 17.1 18.9 1.0 15.3 5.0 16.5 25.2 P4FMAJ2OA 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ2OA 19.0 21.0 1.0 17.1 5.0 15 27.7 P4FMAJ2OA 19.8 24.2	P4FMAJ12	10.8	13.2	1.0	9.72	5.0	24	17.3
P4FMAJ13A 12.4 13.7 1.0 11.1 5.0 23 18.2 P4FMAJ15 13.5 16.5 1.0 12.1 5.0 19 22.0 P4FMAJ16A 14.3 15.8 1.0 12.8 5.0 20 21.2 P4FMAJ16 14.4 17.6 1.0 12.9 5.0 17.8 23.5 P4FMAJ16A 15.2 16.8 1.0 13.6 5.0 18.6 22.5 P4FMAJ16A 15.2 16.8 1.0 13.6 5.0 16.6 22.5 P4FMAJ18A 16.2 19.8 1.0 14.5 5.0 16 26.5 P4FMAJ2O 18.0 22.0 1.0 15.3 5.0 16.5 25.2 P4FMAJ2OA 19.0 21.0 1.0 17.1 5.0 15 27.7 P4FMAJ22A 19.8 24.2 1.0 17.8 5.0 13.7 30.6 P4FMAJ24A 21.8 25.2 <td>P4FMAJ12A</td> <td>11.4</td> <td>12.6</td> <td>1.0</td> <td>10.2</td> <td>5.0</td> <td>25</td> <td>16.7</td>	P4FMAJ12A	11.4	12.6	1.0	10.2	5.0	25	16.7
P4FMAJ15 13.5 16.5 1.0 12.1 5.0 19 22.0 P4FMAJ16A 14.3 15.8 1.0 12.8 5.0 20 21.2 P4FMAJ16 14.4 17.6 1.0 12.9 5.0 17.8 23.5 P4FMAJ16A 15.2 16.8 1.0 13.6 5.0 18.6 22.5 P4FMAJ18 16.2 19.8 1.0 14.5 5.0 16 26.5 P4FMAJ18A 17.1 18.9 1.0 15.3 5.0 16.5 25.2 P4FMAJ2O 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ2OA 19.0 21.0 1.0 17.1 5.0 15 27.7 P4FMAJ2A 19.8 24.2 1.0 17.8 5.0 13 31.9 P4FMAJ2A 21.6 26.4 1.0 19.4 5.0 13.7 30.6 P4FMAJ24A 22.6 26.2	P4FMAJ13	11.7	14.3	1.0	10.5	5.0	22	19.0
P4FMAJ15A 14.3 15.8 1.0 12.8 5.0 20 21.2 P4FMAJ16 14.4 17.6 1.0 12.9 5.0 17.8 23.5 P4FMAJ16A 15.2 16.8 1.0 13.6 5.0 18.6 22.5 P4FMAJ18 16.2 19.8 1.0 14.5 5.0 16 26.5 P4FMAJ18A 17.1 18.9 1.0 15.3 5.0 16.5 25.2 P4FMAJ2O 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ2O 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ2OA 19.0 21.0 1.0 17.1 5.0 15 27.7 P4FMAJ2PA 19.8 24.2 1.0 17.8 5.0 13 31.9 P4FMAJ2PA 21.6 26.4 1.0 19.4 5.0 12 34.7 P4FMAJ24A 22.8 25.2	P4FMAJ13A	12.4		1.0		5.0	23	18.2
P4FMAJ15A 14.3 15.8 1.0 12.8 5.0 20 21.2 P4FMAJ16A 14.4 17.6 1.0 12.9 5.0 17.8 23.5 P4FMAJ16A 15.2 16.8 1.0 13.6 5.0 18.6 22.5 P4FMAJ18 16.2 19.8 1.0 14.5 5.0 16 26.5 P4FMAJ18A 17.1 18.9 1.0 15.3 5.0 16.5 25.2 P4FMAJ2O 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ2O 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ2O 19.8 24.2 1.0 17.1 5.0 15 27.7 P4FMAJ2PA 19.8 24.2 1.0 17.8 5.0 13 31.9 P4FMAJ2PA 21.6 26.4 1.0 19.4 5.0 12 34.7 P4FMAJ2PA 22.8 25.2	P4FMAJ15	13.5	16.5	1.0	12.1	5.0	19	22.0
P4FMAJ16A 15.2 16.8 1.0 13.6 5.0 18.6 22.5 P4FMAJ18 16.2 19.8 1.0 14.5 5.0 16 26.5 P4FMAJ18A 17.1 18.9 1.0 15.3 5.0 16.5 25.2 P4FMAJ20 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ20A 19.0 21.0 1.0 17.1 5.0 15 27.7 P4FMAJ22 19.8 24.2 1.0 17.8 5.0 13 31.9 P4FMAJ22A 20.9 23.1 1.0 18.8 5.0 13.7 30.6 P4FMAJ24A 21.6 26.4 1.0 19.4 5.0 12 34.7 P4FMAJ27A 22.8 25.2 1.0 20.5 5.0 10.7 39.1 P4FMAJ30 27.0 33.0 1.0 24.3 5.0 10.7 39.1 P4FMAJ330 27.0 33.0 <td>P4FMAJ15A</td> <td>14.3</td> <td>15.8</td> <td>1.0</td> <td>12.8</td> <td>5.0</td> <td>20</td> <td></td>	P4FMAJ15A	14.3	15.8	1.0	12.8	5.0	20	
P4FMAJ16A 15.2 16.8 1.0 13.6 5.0 18.6 22.5 P4FMAJ18 16.2 19.8 1.0 14.5 5.0 16 26.5 P4FMAJ20A 17.1 18.9 1.0 15.3 5.0 16.5 25.2 P4FMAJ20A 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ20A 19.0 21.0 1.0 17.1 5.0 15 27.7 P4FMAJ22A 19.0 21.0 1.0 17.1 5.0 15 27.7 P4FMAJ22A 19.8 24.2 1.0 17.8 5.0 13 31.9 P4FMAJ2AA 20.9 23.1 1.0 18.8 5.0 13.7 30.6 P4FMAJ24A 21.6 26.4 1.0 19.4 5.0 12.6 33.2 P4FMAJ27A 24.3 29.7 1.0 21.8 5.0 10.7 39.1 P4FMAJ30 27.0 33.0 </td <td>P4FMAJ16</td> <td>14.4</td> <td>17.6</td> <td>1.0</td> <td>12.9</td> <td>5.0</td> <td>17.8</td> <td>23.5</td>	P4FMAJ16	14.4	17.6	1.0	12.9	5.0	17.8	23.5
P4FMAJ18 16.2 19.8 1.0 14.5 5.0 16 26.5 P4FMAJ18A 17.1 18.9 1.0 15.3 5.0 16.5 25.2 P4FMAJ2O 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ2OA 19.0 21.0 1.0 17.1 5.0 15 27.7 P4FMAJ22 19.8 24.2 1.0 17.8 5.0 13 31.9 P4FMAJ22A 20.9 23.1 1.0 18.8 5.0 13.7 30.6 P4FMAJ24A 21.6 26.4 1.0 19.4 5.0 12 34.7 P4FMAJ24A 22.8 25.2 1.0 20.5 5.0 12.6 33.2 P4FMAJ27A 25.7 28.4 1.0 21.8 5.0 10.7 39.1 P4FMAJ30A 28.5 31.5 1.0 23.1 5.0 9.6 43.5 P4FMAJ33A 31.4 34.7 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
P4FMAJ18A 17.1 18.9 1.0 15.3 5.0 16.5 25.2 P4FMAJ2O 18.0 22.0 1.0 16.2 5.0 14 29.1 P4FMAJ2OA 19.0 21.0 1.0 17.1 5.0 15 27.7 P4FMAJ22 19.8 24.2 1.0 17.8 5.0 13 31.9 P4FMAJ22A 20.9 23.1 1.0 18.8 5.0 13.7 30.6 P4FMAJ24 21.6 26.4 1.0 19.4 5.0 12 34.7 P4FMAJ24A 22.8 25.2 1.0 20.5 5.0 12.6 33.2 P4FMAJ27 24.3 29.7 1.0 21.8 5.0 10.7 39.1 P4FMAJ27A 25.7 28.4 1.0 23.1 5.0 11.0 37.5 P4FMAJ300 27.0 33.0 1.0 24.3 5.0 9.6 43.5 P4FMAJ30A 28.5 31.5 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
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P4FMAJ51 45.9 56.1 1.0 41.3 5.0 5.7 73.5 P4FMAJ51A 48.5 53.6 1.0 43.6 5.0 6.0 70.1								
P4FMAJ51A 48.5 53.6 1.0 43.6 5.0 6.0 70.1								
P4FMAJ56 50.4 61.6 1.0 45.4 5.0 5.2 80.5								
P4FMAJ56A 53,2 58,8 1,0 47,8 5,0 5,4 77,0								

TRANSIENT VOLTAGE SUPPRESSORS

400W SERIES TVS DIODES / DO-214AC (CASE 2) 400W

	Breakdown Voltage		Reverse	Maximum	Maximum	Maximum	
TYPE	V _{BR} (Volts)		@IT	Stand off Voltage Vww	Reverse Leakage	Peak Pulse Current	Clamping Voltage
	MIN.	MAX.	(mA)	(Volts)	at VwM ID(uA)	IPPM (Amps)	at IPPM VC (Volts)
P4FMAJ62	55.8	68.2	1.0	50.2	5.0	4.7	89.0
P4FMAJ62A	58.9	65.1	1.0	53.0	5.0	5.0	85.0
P4FMAJ68	61.2	74.8	1.0	55.1	5.0	4.2	98.0
P4FMAJ68A	64.6	71.4	1.0	58.1	5.0	4.5	92.0
P4FMAJ75	67.5	82.5	1.0	60.7	5.0	3.8	108
P4FMAJ75A	71.3	78.8	1.0	64.1	5.0	4.0	103
P4FMAJ82	73.8	90.2	1.0	66.4	5.0	3.5	118
P4FMAJ82A	77.9	86.1	1.0	70.1	5.0	3.7	113
P4FMAJ91	81.9	100	1.0	73.7	5.0	3.2	131
P4FMAJ91A	86.5	95.5	1.0	77.8	5.0	3.3	125
P4FMAJ100	90.0	110	1.0	81.0	5.0	2.9	144
P4FMAJ100A	95.0	105	1.0	85.5	5.0	3.0	137
P4FMAJ110	99.0	121	1.0	89.2	5.0	2.6	158
P4FMAJ110A	105	116	1.0	94.0	5.0	2.7	152
P4FMAJ120	108	132	1.0	97.2	5.0	2.4	173
P4FMAJ120A	114	126	1.0	102	5.0	2.5	165
P4FMAJ130	117	143	1.0	105	5.0	2.2	187
P4FMAJ130A	124	137	1.0	111	5.0	2.3	179
P4FMAJ150	135	165	1.0	121	5.0	1.9	215
P4FMAJ150A	143	158	1.0	128	5.0	2.0	207
P4FMAJ160	144	176	1.0	130	5.0	1.8	230
P4FMAJ160A	152	168	1.0	136	5.0	1.9	219
P4FMAJ170	153	187	1.0	138	5.0	1.7	244
P4FMAJ170A	162	179	1.0	145	5.0	1.8	234
P4FMAJ180	162	198	1.0	146	5.0	1.6	258
P4FMAJ180A	171	189	1.0	154	5.0	1.7	246
P4FMAJ200	180	220	1.0	162	5.0	1.4	287
P4FMAJ200A	190	210	1.0	171	5.0	1.5	274
P4FMAJ220	198	242	1.0	175	5.0	1.2	344
P4FMAJ220A	209	231	1.0	185	5.0	1.3	328
P4FMAJ250	225	275	1.0	202	5.0	1.1	360
P4FMAJ250A	237	263	1.0	214	5.0	1.2	344
P4FMAJ300	270	330	1.0	243	5.0	0.97	430
P4FMAJ300A	285	315	1.0	256	5.0	1.00	414
P4FMAJ350	315	385	1.0	284	5.0	0.83	504
P4FMAJ350A	332	368	1.0	300	5.0	0.87	482
P4FMAJ400	360	440	1.0	324	5.0	0.73	574
P4FMAJ400A	380	420	1.0	342	5.0	0.76	548

NOTES: 1. V_{BR} measured after I_T applied for 300ms. I_T = square pluse or equivalent.

- 2. For bidirectional use C or CA suffixs for all types (ex. P4FMAJ6.8C, P4FMAJ400CA) electrical characteristics apply in both directions.
- 3. For bidirectional types having V_{WM} of 10 volts and less, the $I_{\mbox{\scriptsize D}}$ limit is doubled.
- 4. Whole voltage range is available in MELF packages.

