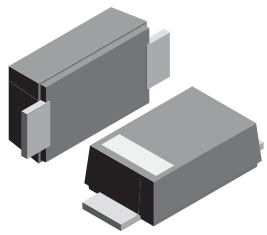
P4SMAFJ5.0A(CA) - P4SMAFJ440A(CA)

SURFACE MOUNT TRANSIENT VOLTAGE SUPPESSOR DIODE

VOLTAGE RANGE: 5.0 - 440 V
POWER: 400Watts



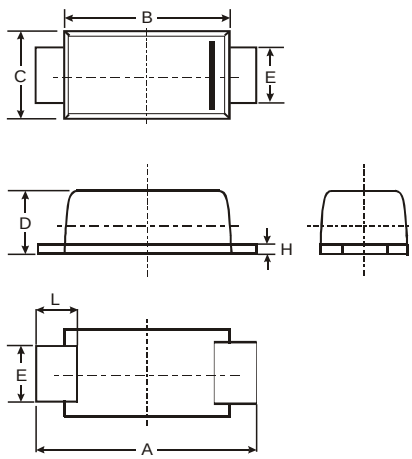
Features

- Glass Passivated Die Construction
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Material: UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: SMAF,Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity:Color band denotes cathode end
- Mounting Position:Any
- Weight:0.0018 ounce, 0.064 grams

RoHS COMPLIANT



SMAF			
Dim	Min	Max	Typ
A	4.75	4.85	4.80
B	3.68	3.72	3.70
C	2.57	2.63	2.60
D	0.097	1.03	1.00
E	1.38	1.42	1.40
H	0.13	0.17	0.15
L	0.63	0.67	0.65
All Dimensions in mm			

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above T_A = 25°C) (Note 1)	P_{PK}	400	W
Peak Forward Surge Current, 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method) (Notes 1, 2, & 3)	I_{FSM}	40	A
Instantaneous Forward Voltage @ I_{PP} = 35A (Notes 1, 2, & 3)	V_F	3.5	V
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150	°C

Notes: 1. Valid provided that terminals are kept at ambient temperature.
2. Measured with 8.3ms single half sine-wave. Duty cycle = 4 pulses per minute maximum.
3. Unidirectional units only.

TYPE		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I_T	Breakdown Voltage Max. @ I_T	Test Current	Maximum Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage @V_{RWM}
(Uni)	(Bi)	V_{RWM}(V)	$V_{BR\ MIN}$(V)	$V_{BR\ MAX}$(V)	I_T (mA)	V_C(V)	I_{PP}(A)	I_R(uA)
P4SMAFJ5.0	P4SMAFJ5.0C	5.0	6.40	7.55	10.0	9.6	41.7	800.0
P4SMAFJ5.0A	P4SMAFJ5.0CA	5.0	6.40	7.25	10.0	9.2	43.5	800.0
P4SMAFJ6.0	P4SMAFJ6.0C	6.0	6.67	8.45	10.0	11.4	35.1	800.0
P4SMAFJ6.0A	P4SMAFJ6.0CA	6.0	6.67	7.67	10.0	10.3	38.8	800.0
P4SMAFJ6.5	P4SMAFJ6.5C	6.5	7.22	9.14	10.0	12.3	32.5	500.0
P4SMAFJ6.5A	P4SMAFJ6.5CA	6.5	7.22	8.30	10.0	11.2	35.7	500.0
P4SMAFJ7.0	P4SMAFJ7.0C	7.0	7.78	9.86	10.0	13.3	30.1	200.0
P4SMAFJ7.0A	P4SMAFJ7.0CA	7.0	7.78	8.95	10.0	12.0	33.3	200.0
P4SMAFJ7.5	P4SMAFJ7.5C	7.5	8.33	10.67	1.0	14.3	28.0	100.0
P4SMAFJ7.5A	P4SMAFJ7.5CA	7.5	8.33	9.58	1.0	12.9	31.0	100.0
P4SMAFJ8.0	P4SMAFJ8.0C	8.0	8.89	11.3	1.0	15.0	26.7	50.0
P4SMAFJ8.0A	P4SMAFJ8.0CA	8.0	8.89	10.23	1.0	13.6	29.4	50.0
P4SMAFJ8.5	P4SMAFJ8.5C	8.5	9.44	11.92	1.0	15.9	25.2	20.0
P4SMAFJ8.5A	P4SMAFJ8.5CA	8.5	9.44	10.82	1.0	14.4	27.8	20.0
P4SMAFJ9.0	P4SMAFJ9.0C	9.0	10.0	12.6	1.0	16.9	23.7	10.0
P4SMAFJ9.0A	P4SMAFJ9.0CA	9.0	10.0	11.5	1.0	15.4	26.0	10.0
P4SMAFJ10	P4SMAFJ10C	10	11.1	14.1	1.0	18.8	21.3	5.0
P4SMAFJ10A	P4SMAFJ10CA	10	11.1	12.8	1.0	17.0	23.5	5.0
P4SMAFJ11	P4SMAFJ11C	11	12.2	15.4	1.0	20.1	19.9	5.0
P4SMAFJ11A	P4SMAFJ11CA	11	12.2	14.0	1.0	18.2	22.0	5.0
P4SMAFJ12	P4SMAFJ12C	12	13.3	16.9	1.0	22.0	18.2	5.0
P4SMAFJ12A	P4SMAFJ12CA	12	13.3	15.3	1.0	19.9	20.1	5.0
P4SMAFJ13	P4SMAFJ13C	13	14.4	18.2	1.0	23.8	16.8	5.0
P4SMAFJ13A	P4SMAFJ13CA	13	14.4	16.5	1.0	21.5	18.6	5.0
P4SMAFJ14	P4SMAFJ14C	14	15.6	19.8	1.0	25.8	15.5	5.0
P4SMAFJ14A	P4SMAFJ14CA	14	15.6	17.9	1.0	23.2	17.2	5.0
P4SMAFJ15	P4SMAFJ15C	15	16.7	21.1	1.0	26.9	14.9	5.0
P4SMAFJ15A	P4SMAFJ15CA	15	16.7	19.2	1.0	24.4	16.4	5.0
P4SMAFJ16	P4SMAFJ16C	16	17.8	22.6	1.0	28.8	13.9	5.0
P4SMAFJ16A	P4SMAFJ16CA	16	17.8	20.5	1.0	26.0	15.4	5.0
P4SMAFJ17	P4SMAFJ17C	17	18.9	23.9	1.0	30.5	13.1	5.0
P4SMAFJ17A	P4SMAFJ17CA	17	18.9	21.7	1.0	27.6	14.5	5.0
P4SMAFJ18	P4SMAFJ18C	18	20.0	25.3	1.0	32.2	12.4	5.0
P4SMAFJ18A	P4SMAFJ18CA	18	20.0	23.3	1.0	29.2	13.7	5.0
P4SMAFJ20	P4SMAFJ20C	20	22.2	28.1	1.0	35.8	11.2	5.0
P4SMAFJ20A	P4SMAFJ20CA	20	22.2	25.5	1.0	32.4	12.3	5.0
P4SMAFJ22	P4SMAFJ22C	22	24.4	30.9	1.0	39.4	10.2	5.0
P4SMAFJ22A	P4SMAFJ22CA	22	24.4	28.0	1.0	35.5	11.3	5.0
P4SMAFJ24	P4SMAFJ24C	24	26.7	33.8	1.0	43.0	9.3	5.0
P4SMAFJ24A	P4SMAFJ24CA	24	26.7	30.7	1.0	38.9	10.3	5.0
P4SMAFJ26	P4SMAFJ26C	26	28.9	36.6	1.0	46.6	8.6	5.0
P4SMAFJ26A	P4SMAFJ26CA	26	28.9	33.2	1.0	42.1	9.5	5.0
P4SMAFJ28	P4SMAFJ28C	28	31.1	39.4	1.0	50.0	8.0	5.0
P4SMAFJ28A	P4SMAFJ28CA	28	31.1	35.8	1.0	45.4	8.8	5.0
P4SMAFJ30	P4SMAFJ30C	30	33.3	42.2	1.0	53.5	7.5	5.0
P4SMAFJ30A	P4SMAFJ30CA	30	33.3	38.3	1.0	48.4	8.3	5.0
P4SMAFJ33	P4SMAFJ33C	33	36.7	46.5	1.0	59.0	6.8	5.0
P4SMAFJ33A	P4SMAFJ33CA	33	36.7	42.2	1.0	53.3	7.5	5.0

TYPE		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I_T	Breakdown Voltage Max. @ I_T	Test Current	Maximum Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage @V_{RWM}
(Uni)	(Bi)	V_{RWM}(V)	$V_{BR\ MIN}$(V)	$V_{BR\ MAX}$(V)	I_T (mA)	V_C(V)	I_{PP}(A)	I_R(uA)
P4SMAFJ36	P4SMAFJ36C	36	40.0	50.7	1.0	64.3	6.2	5.0
P4SMAFJ36A	P4SMAFJ36CA	36	40.0	46.0	1.0	58.1	6.9	5.0
P4SMAFJ40	P4SMAFJ40C	40	44.4	56.3	1.0	71.4	5.6	5.0
P4SMAFJ40A	P4SMAFJ40CA	40	44.4	51.1	1.0	64.5	6.2	5.0
P4SMAFJ43	P4SMAFJ43C	43	47.7	60.5	1.0	76.7	5.2	5.0
P4SMAFJ43A	P4SMAFJ43CA	43	47.8	54.9	1.0	69.4	5.8	5.0
P4SMAFJ45	P4SMAFJ45C	45	50.0	63.3	1.0	80.3	5.0	5.0
P4SMAFJ45A	P4SMAFJ45CA	45	50.0	57.5	1.0	72.7	5.5	5.0
P4SMAFJ48	P4SMAFJ48C	48	53.3	67.5	1.0	85.5	4.7	5.0
P4SMAFJ48A	P4SMAFJ48CA	48	53.3	61.3	1.0	77.4	5.2	5.0
P4SMAFJ51	P4SMAFJ51C	51	56.7	71.8	1.0	91.1	4.4	5.0
P4SMAFJ51A	P4SMAFJ51CA	51	56.7	65.2	1.0	82.4	4.9	5.0
P4SMAFJ54	P4SMAFJ54C	54	60.0	76.0	1.0	96.3	4.2	5.0
P4SMAFJ54A	P4SMAFJ54CA	54	60.0	69.0	1.0	87.1	4.6	5.0
P4SMAFJ58	P4SMAFJ58C	58	64.4	81.6	1.0	103	3.9	5.0
P4SMAFJ58A	P4SMAFJ58CA	58	64.4	74.1	1.0	93.6	4.3	5.0
P4SMAFJ60	P4SMAFJ60C	60	66.7	84.5	1.0	107	3.7	5.0
P4SMAFJ60A	P4SMAFJ60CA	60	66.7	76.7	1.0	96.8	4.1	5.0
P4SMAFJ64	P4SMAFJ64C	64	71.1	90.1	1.0	114	3.5	5.0
P4SMAFJ64A	P4SMAFJ64CA	64	71.1	81.8	1.0	103	3.9	5.0
P4SMAFJ70	P4SMAFJ70C	70	77.8	98.6	1.0	125	3.2	5.0
P4SMAFJ70A	P4SMAFJ70CA	70	77.8	89.5	1.0	113	3.5	5.0
P4SMAFJ75	P4SMAFJ75C	75	83.0	105.7	1.0	134	3.0	5.0
P4SMAFJ75A	P4SMAFJ75CA	75	83.0	95.8	1.0	121	3.3	5.0
P4SMAFJ78	P4SMAFJ78C	78	86.0	109.8	1.0	139	2.9	5.0
P4SMAFJ78A	P4SMAFJ78CA	78	86.0	99.7	1.0	126	3.2	5.0
P4SMAFJ85	P4SMAFJ85C	85	94.0	119.2	1.0	151	2.6	5.0
P4SMAFJ85A	P4SMAFJ85CA	85	94.0	108.2	1.0	137	2.9	5.0
P4SMAFJ90	P4SMAFJ90C	90	100	126.5	1.0	160	2.5	5.0
P4SMAFJ90A	P4SMAFJ90CA	90	100	115.5	1.0	146	2.7	5.0
P4SMAFJ100	P4SMAFJ100C	100	111	141.0	1.0	179	2.2	5.0
P4SMAFJ100A	P4SMAFJ100CA	100	111	128.0	1.0	162	2.5	5.0
P4SMAFJ110	P4SMAFJ110C	110	122	154.5	1.0	196	2.0	5.0
P4SMAFJ110A	P4SMAFJ110CA	110	122	140.5	1.0	177	2.3	5.0
P4SMAFJ120	P4SMAFJ120C	120	133	169.0	1.0	214	1.9	5.0
P4SMAFJ120A	P4SMAFJ120CA	120	133	153.0	1.0	193	2.1	5.0
P4SMAFJ130	P4SMAFJ130C	130	144	182.5	1.0	231	1.7	5.0
P4SMAFJ130A	P4SMAFJ130CA	130	144	165.5	1.0	209	1.9	5.0
P4SMAFJ150	P4SMAFJ150C	150	167	211.5	1.0	268	1.5	5.0
P4SMAFJ150A	P4SMAFJ150CA	150	167	192.5	1.0	243	1.6	5.0
P4SMAFJ160	P4SMAFJ160C	160	178	226.0	1.0	287	1.4	5.0
P4SMAFJ160A	P4SMAFJ160CA	160	178	205.0	1.0	259	1.5	5.0
P4SMAFJ170	P4SMAFJ170C	170	189	239.5	1.0	304	1.3	5.0
P4SMAFJ170A	P4SMAFJ170CA	170	189	217.5	1.0	275	1.5	5.0

TYPE		Reverse Stand-Off Voltage	Breakdown Voltage Min. @I_T	Breakdown Voltage Max. @ I_T	Test Current	Maximum Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage @V_{RWM}
(Uni)	(Bi)	V_{RWM}(V)	$V_{BR\ MIN}$(V)	$V_{BR\ MAX}$(V)	I_T (mA)	V_C(V)	I_{PP}(A)	I_R(uA)
P4SMAFJ180	P4SMAFJ180C	180	200	253.8	1.0	321	1.2	5.0
P4SMAFJ180A	P4SMAFJ180CA	180	200	230.4	1.0	290	1.4	5.0
P4SMAFJ190	P4SMAFJ190C	190	211	267.9	1.0	339	1.2	5.0
P4SMAFJ190A	P4SMAFJ190CA	190	211	243.2	1.0	306	1.3	5.0
P4SMAFJ200	P4SMAFJ200C	200	222	282.0	1.0	356	1.1	5.0
P4SMAFJ200A	P4SMAFJ200CA	200	222	256.0	1.0	322	1.2	5.0
P4SMAFJ210	P4SMAFJ210C	210	233	296.1	1.0	375	1.1	5.0
P4SMAFJ210A	P4SMAFJ210CA	210	233	268.8	1.0	339	1.2	5.0
P4SMAFJ220	P4SMAFJ220C	220	244	310.2	1.0	392	1.0	5.0
P4SMAFJ220A	P4SMAFJ220CA	220	244	281.6	1.0	355	1.1	5.0
P4SMAFJ250	P4SMAFJ250C	250	278	342.5	1.0	447	0.9	5.0
P4SMAFJ250A	P4SMAFJ250CA	250	278	309.0	1.0	403	1.0	5.0
P4SMAFJ300	P4SMAFJ300C	300	333	411.0	1.0	535	0.7	5.0
P4SMAFJ300A	P4SMAFJ300CA	300	333	371.0	1.0	484	0.8	5.0
P4SMAFJ350	P4SMAFJ350C	350	389	479.5	1.0	624	0.6	5.0
P4SMAFJ350A	P4SMAFJ350CA	350	389	432.0	1.0	565	0.7	5.0
P4SMAFJ400	P4SMAFJ400C	400	444	548.0	1.0	687	0.6	5.0
P4SMAFJ400A	P4SMAFJ400CA	400	444	494.0	1.0	645	0.6	5.0
P4SMAFJ440	P4SMAFJ440C	440	489	602.8	1.0	786	0.5	5.0
P4SMAFJ440A	P4SMAFJ440CA	440	489	543.0	1.0	710	0.6	5.0

Ratings and Characteristic Curves T_A=25°C unless otherwise noted

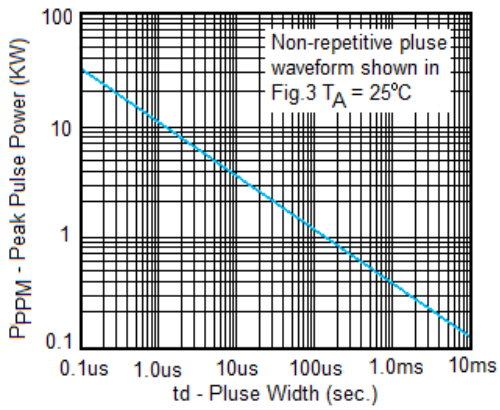


Fig. 1 Peak Pulse Power Rating

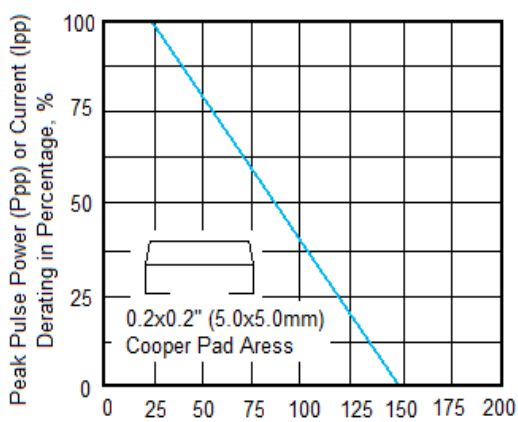


Fig.2 Pulse Derating Cure

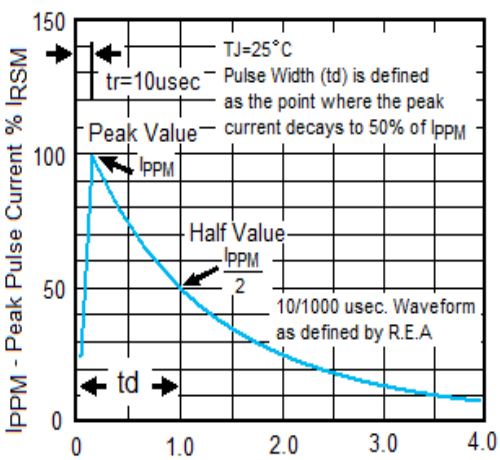


Fig.3 Pulse Waveform

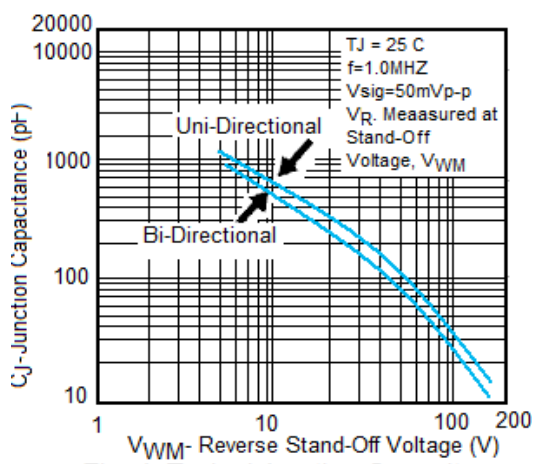


Fig. 4- Typical Junction Capacitance