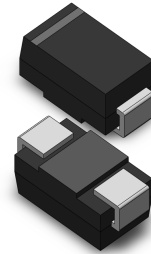


VOLTAGE RANGE: 5.0 - 440 V
POWER: 400Watts

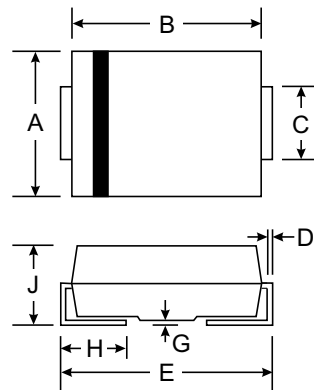


Features

- 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: SMA, Transfer Molded Epoxy
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity Indicator: Cathode Band
(Note: Bi-directional devices have no polarity indicator.)
- Marking: Date Code and Marking Code
See Page 2
- Weight: 0.064 grams (approx.)



SMA(DO-214AC)		
Dim	Min	Max
A	2.29	2.92
B	4.00	4.60
C	1.27	1.63
D	0.15	0.31
E	4.80	5.59
G	0.10	0.20
H	0.76	1.52
J	2.01	2.62
All Dimensions in mm		



Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation (Non repetitive current pulse derated above $T_A = 25^\circ\text{C}$) (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 @ $I_{PP} = 35\text{A}$ (Notes 1, 2, & 3)	V_F	3.5	V
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150	$^\circ\text{C}$

- 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 (μA)
SMA5.0	SMA5.0C	5.0	6.40	7.55	10.0	9.6	41.7	800.0
SMA5.0A	SMA5.0CA	5.0	6.40	7.25	10.0	9.2	43.5	800.0
SMA6.0	SMA6.0C	6.0	6.67	8.45	10.0	11.4	35.1	800.0
SMA6.0A	SMA6.0CA	6.0	6.67	7.67	10.0	10.3	38.8	800.0
SMA6.5	SMA6.5C	6.5	7.22	9.14	10.0	12.3	32.5	500.0
SMA6.5A	SMA6.5CA	6.5	7.22	8.30	10.0	11.2	35.7	500.0
SMA7.0	SMA7.0C	7.0	7.78	9.86	10.0	13.3	30.1	200.0
SMA7.0A	SMA7.0CA	7.0	7.78	8.95	10.0	12.0	33.3	200.0
SMA7.5	SMA7.5C	7.5	8.33	10.67	1.0	14.3	28.0	100.0
SMA7.5A	SMA7.5CA	7.5	8.33	9.58	1.0	12.9	31.0	100.0
SMA8.0	SMA8.0C	8.0	8.89	11.3	1.0	15.0	26.7	50.0
SMA8.0A	SMA8.0CA	8.0	8.89	10.23	1.0	13.6	29.4	50.0
SMA8.5	SMA8.5C	8.5	9.44	11.92	1.0	15.9	25.2	20.0
SMA8.5A	SMA8.5CA	8.5	9.44	10.82	1.0	14.4	27.8	20.0
SMA9.0	SMA9.0C	9.0	10.0	12.6	1.0	16.9	23.7	10.0
SMA9.0A	SMA9.0CA	9.0	10.0	11.5	1.0	15.4	26.0	10.0
SMA10	SMA10C	10	11.1	14.1	1.0	18.8	21.3	5.0
SMA10A	SMA10CA	10	11.1	12.8	1.0	17.0	23.5	5.0
SMA11	SMA11C	11	12.2	15.4	1.0	20.1	19.9	5.0
SMA11A	SMA11CA	11	12.2	14.0	1.0	18.2	22.0	5.0
SMA12	SMA12C	12	13.3	16.9	1.0	22.0	18.2	5.0
SMA12A	SMA12CA	12	13.3	15.3	1.0	19.9	20.1	5.0
SMA13	SMA13C	13	14.4	18.2	1.0	23.8	16.8	5.0
SMA13A	SMA13CA	13	14.4	16.5	1.0	21.5	18.6	5.0
SMA14	SMA14C	14	15.6	19.8	1.0	25.8	15.5	5.0
SMA14A	SMA14CA	14	15.6	17.9	1.0	23.2	17.2	5.0
SMA15	SMA15C	15	16.7	21.1	1.0	26.9	14.9	5.0
SMA15A	SMA15CA	15	16.7	19.2	1.0	24.4	16.4	5.0
SMA16	SMA16C	16	17.8	22.6	1.0	28.8	13.9	5.0
SMA16A	SMA16CA	16	17.8	20.5	1.0	26.0	15.4	5.0
SMA17	SMA17C	17	18.9	23.9	1.0	30.5	13.1	5.0
SMA17A	SMA17CA	17	18.9	21.7	1.0	27.6	14.5	5.0
SMA18	SMA18C	18	20.0	25.3	1.0	32.2	12.4	5.0
SMA18A	SMA18CA	18	20.0	23.3	1.0	29.2	13.7	5.0
SMA20	SMA20C	20	22.2	28.1	1.0	35.8	11.2	5.0
SMA20A	SMA20CA	20	22.2	25.5	1.0	32.4	12.3	5.0
SMA22	SMA22C	22	24.4	30.9	1.0	39.4	10.2	5.0
SMA22A	SMA22CA	22	24.4	28.0	1.0	35.5	11.3	5.0
SMA24	SMA24C	24	26.7	33.8	1.0	43.0	9.3	5.0
SMA24A	SMA24CA	24	26.7	30.7	1.0	38.9	10.3	5.0
SMA26	SMA26C	26	28.9	36.6	1.0	46.6	8.6	5.0
SMA26A	SMA26CA	26	28.9	33.2	1.0	42.1	9.5	5.0
SMA28	SMA28C	28	31.1	39.4	1.0	50.0	8.0	5.0
SMA28A	SMA28CA	28	31.1	35.8	1.0	45.4	8.8	5.0
SMA30	SMA30C	30	33.3	42.2	1.0	53.5	7.5	5.0
SMA30A	SMA30CA	30	33.3	38.3	1.0	48.4	8.3	5.0
SMA33	SMA33C	33	36.7	46.5	1.0	59.0	6.8	5.0
SMA33A	SMA33CA	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 _{RMWM}
(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)
SMA36	SMA36C	36	40.0	50.7	1.0	64.3	6.2	5.0
SMA36A	SMA36CA	36	40.0	46.0	1.0	58.1	6.9	5.0
SMA40	SMA40C	40	44.4	56.3	1.0	71.4	5.6	5.0
SMA40A	SMA40CA	40	44.4	51.1	1.0	64.5	6.2	5.0
SMA43	SMA43C	43	47.7	60.5	1.0	76.7	5.2	5.0
SMA43A	SMA43CA	43	47.8	54.9	1.0	69.4	5.8	5.0
SMA45	SMA45C	45	50.0	63.3	1.0	80.3	5.0	5.0
SMA45A	SMA45CA	45	50.0	57.5	1.0	72.7	5.5	5.0
SMA48	SMA48C	48	53.3	67.5	1.0	85.5	4.7	5.0
SMA48A	SMA48CA	48	53.3	61.3	1.0	77.4	5.2	5.0
SMA51	SMA51C	51	56.7	71.8	1.0	91.1	4.4	5.0
SMA51A	SMA51CA	51	56.7	65.2	1.0	82.4	4.9	5.0
SMA54	SMA54C	54	60.0	76.0	1.0	96.3	4.2	5.0
SMA54A	SMA54CA	54	60.0	69.0	1.0	87.1	4.6	5.0
SMA58	SMA58C	58	64.4	81.6	1.0	103	3.9	5.0
SMA58A	SMA58CA	58	64.4	74.1	1.0	93.6	4.3	5.0
SMA60	SMA60C	60	66.7	84.5	1.0	107	3.7	5.0
SMA60A	SMA60CA	60	66.7	76.7	1.0	96.8	4.1	5.0
SMA64	SMA64C	64	71.1	90.1	1.0	114	3.5	5.0
SMA64A	SMA64CA	64	71.1	81.8	1.0	103	3.9	5.0
SMA70	SMA70C	70	77.8	98.6	1.0	125	3.2	5.0
SMA70A	SMA70CA	70	77.8	89.5	1.0	113	3.5	5.0
SMA75	SMA75C	75	83.0	105.7	1.0	134	3.0	5.0
SMA75A	SMA75CA	75	83.0	95.8	1.0	121	3.3	5.0
SMA78	SMA78C	78	86.0	109.8	1.0	139	2.9	5.0
SMA78A	SMA78CA	78	86.0	99.7	1.0	126	3.2	5.0
SMA85	SMA85C	85	94.0	119.2	1.0	151	2.6	5.0
SMA85A	SMA85CA	85	94.0	108.2	1.0	137	2.9	5.0
SMA90	SMA90C	90	100	126.5	1.0	160	2.5	5.0
SMA90A	SMA90CA	90	100	115.5	1.0	146	2.7	5.0
SMA100	SMA100C	100	111	141.0	1.0	179	2.2	5.0
SMA100A	SMA100CA	100	111	128.0	1.0	162	2.5	5.0
SMA110	SMA110C	110	122	154.5	1.0	196	2.0	5.0
SMA110A	SMA110CA	110	122	140.5	1.0	177	2.3	5.0
SMA120	SMA120C	120	133	169.0	1.0	214	1.9	5.0
SMA120A	SMA120CA	120	133	153.0	1.0	193	2.1	5.0
SMA130	SMA130C	130	144	182.5	1.0	231	1.7	5.0
SMA130A	SMA130CA	130	144	165.5	1.0	209	1.9	5.0
SMA150	SMA150C	150	167	211.5	1.0	268	1.5	5.0
SMA150A	SMA150CA	150	167	192.5	1.0	243	1.6	5.0
SMA160	SMA160C	160	178	226.0	1.0	287	1.4	5.0
SMA160A	SMA160CA	160	178	205.0	1.0	259	1.5	5.0
SMA170	SMA170C	170	189	239.5	1.0	304	1.3	5.0
SMA170A	SMA170CA	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)
SMA180	SMA180C	180	200	253.8	1.0	321	1.2	5.0
SMA180A	SMA180CA	180	200	230.4	1.0	290	1.4	5.0
SMA190	SMA190C	190	211	267.9	1.0	339	1.2	5.0
SMA190A	SMA190CA	190	211	243.2	1.0	306	1.3	5.0
SMA200	SMA200C	200	222	282.0	1.0	356	1.1	5.0
SMA200A	SMA200CA	200	222	256.0	1.0	322	1.2	5.0
SMA210	SMA210C	210	233	296.1	1.0	375	1.1	5.0
SMA210A	SMA210CA	210	233	268.8	1.0	339	1.2	5.0
SMA220	SMA220C	220	244	310.2	1.0	392	1.0	5.0
SMA220A	SMA220CA	220	244	281.6	1.0	355	1.1	5.0
SMA250	SMA250C	250	278	342.5	1.0	447	0.9	5.0
SMA250A	SMA250CA	250	278	309.0	1.0	403	1.0	5.0
SMA300	SMA300C	300	333	411.0	1.0	535	0.7	5.0
SMA300A	SMA300CA	300	333	371.0	1.0	484	0.8	5.0
SMA350	SMA350C	350	389	479.5	1.0	624	0.6	5.0
SMA350A	SMA350CA	350	389	432.0	1.0	565	0.7	5.0
SMA400	SMA400C	400	444	548.0	1.0	687	0.6	5.0
SMA400A	SMA400CA	400	444	494.0	1.0	645	0.6	5.0
SMA440	SMA440C	440	489	602.8	1.0	786	0.5	5.0
SMA440A	SMA440CA	440	489	543.0	1.0	710	0.6	5.0

Ratings and Characteristic Curves $T_A=25^\circ\text{C}$ unless otherwise noted

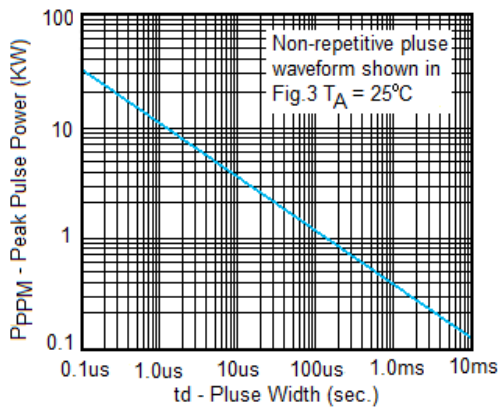


Fig. 1 Peak Pulse Power Rating

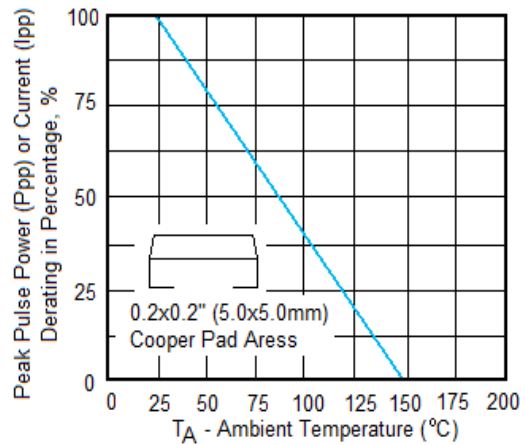


Fig. 2 Pulse Derating Curve

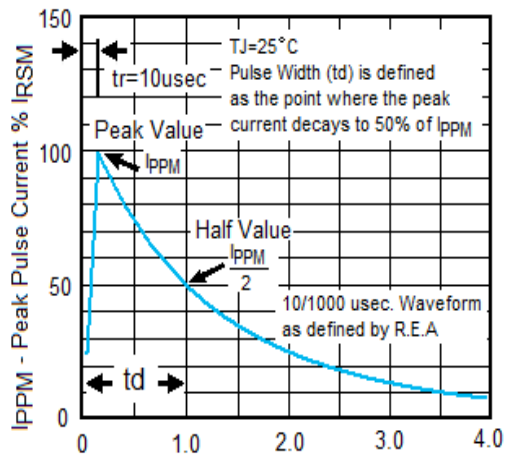


Fig. 3 Pulse Waveform

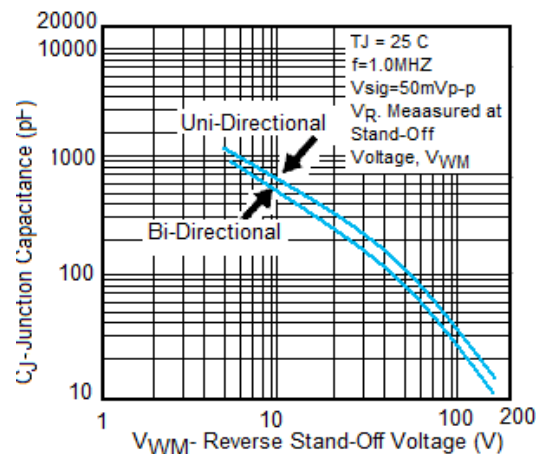


Fig. 4- Typical Junction Capacitance