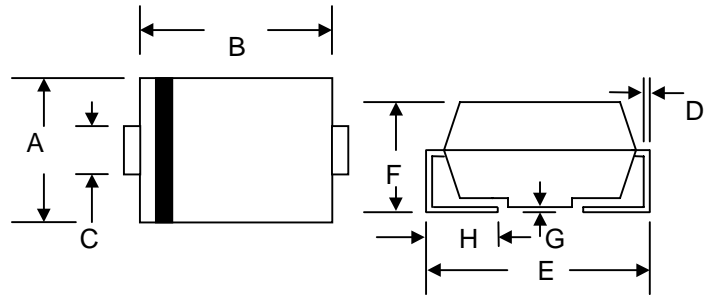


Features

- Glass Passivated Die Construction
- 3000W Peak Pulse Power Dissipation
- 5.0V – 170V Standoff Voltage
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: JEDEC DO-214AB Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking:
Unidirectional – Device Code and Cathode Band
Bidirectional – Device Code Only
- Weight: 0.21 grams (approx.)

SMC/DO-214AB		
Dim	Min	Max
A	5.59	6.22
B	6.60	7.11
C	2.92	3.07
D	0.152	0.305
E	7.75	8.13
F	2.00	2.62
G	0.051	0.203
H	0.76	1.27
All Dimensions in mm		

“C” Suffix Designates Bi-directional Devices
 “A” Suffix Designates 5% Tolerance Devices
 No Suffix Designates 10% Tolerance Devices

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

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation 10/1000 μS Waveform (Note 1, 2) Figure 3	PPPM	3000 Minimum	W
Peak Pulse Current on 10/1000 μS Waveform (Note 1) Figure 4	IPPM	See Table 1	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) (Note 2, 3)	IFSM	100	A
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150	$^\circ\text{C}$

- Note: 1. Non-repetitive current pulse, per Figure 4 and derated above $T_A = 25^\circ\text{C}$ per Figure 1.
 2. Mounted on 8.0mm² copper pads to each terminal.
 3. Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minutes maximum.

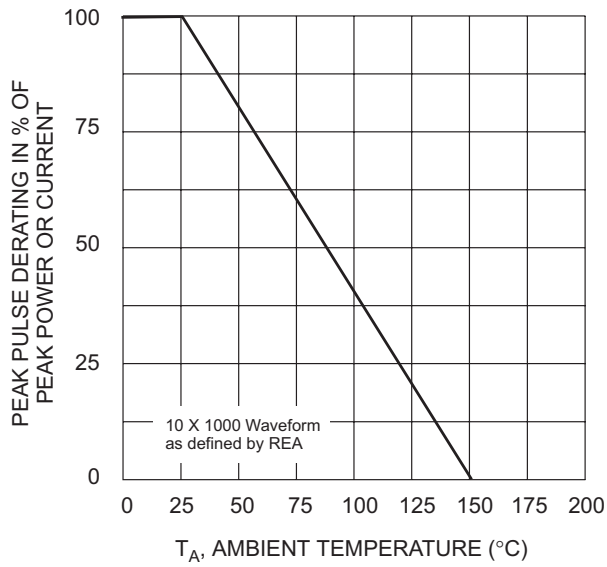


Fig. 1 Pulse Derating Curve

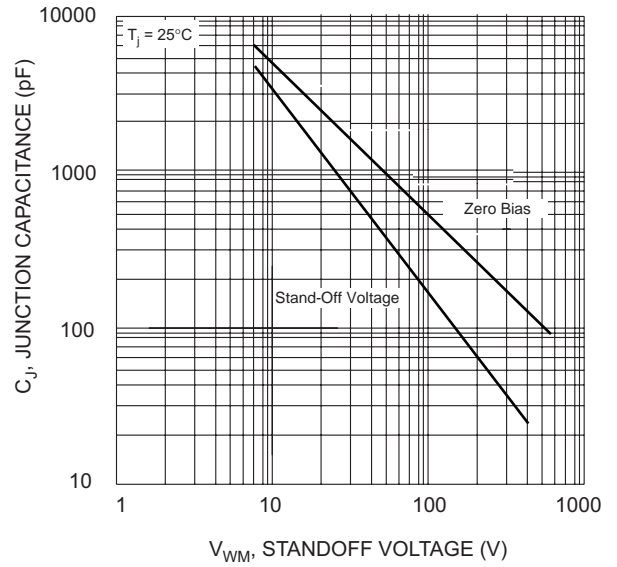


Fig. 2 Typical Junction Capacitance

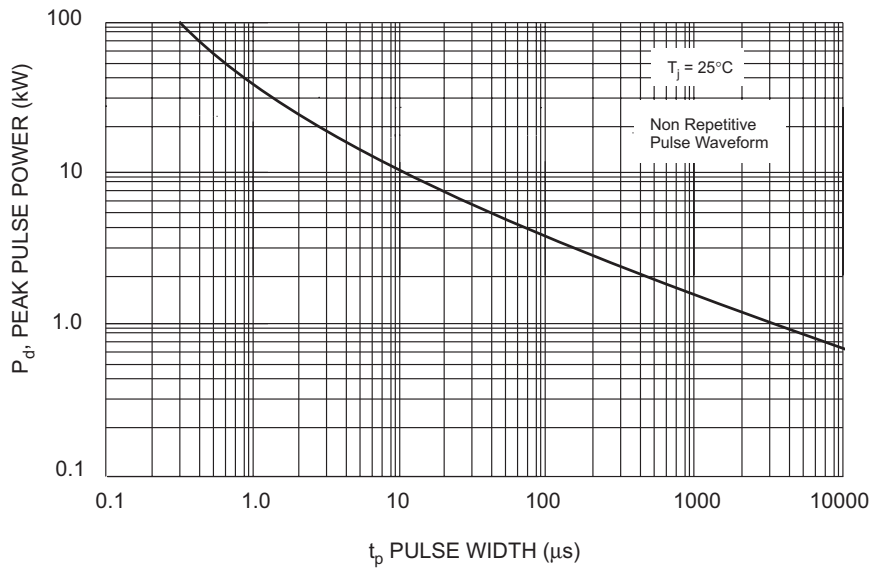


Fig. 3 Pulse Rating Curve

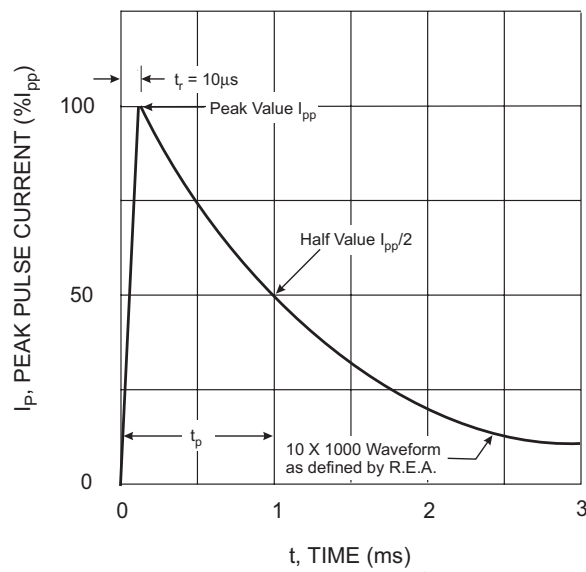


Fig. 4 Pulse Waveform

UNI-DIRECTIONAL 3000 WATT SURFACE MOUNT TVS

UNI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
3.0SMCJ5.0	5.00	6.40	7.55	10	9.6	312.5	1000
3.0SMCJ5.0A	5.00	6.40	7.25	10	9.2	326.0	1000
3.0SMCJ6.0	6.00	6.67	8.45	10	11.4	263.2	1000
3.0SMCJ6.0A	6.00	6.67	7.67	10	10.3	291.3	1000
3.0SMCJ6.5	6.50	7.22	9.14	10	12.3	243.9	500
3.0SMCJ6.5A	6.50	7.22	8.30	10	11.2	267.9	500
3.0SMCJ7.0	7.00	7.78	9.86	10	13.3	225.6	200
3.0SMCJ7.0A	7.00	7.78	8.95	10	12.0	250.0	200
3.0SMCJ7.5	7.50	8.33	10.67	1	14.3	209.8	100
3.0SMCJ7.5A	7.50	8.33	9.58	1	12.9	232.6	100
3.0SMCJ8.0	8.00	8.99	11.30	1	15.0	220.0	50
3.0SMCJ8.0A	8.00	8.99	10.23	1	13.6	220.6	50
3.0SMCJ8.5	8.50	9.44	11.92	1	15.9	188.8	25
3.0SMCJ8.5A	8.50	9.44	10.82	1	14.4	208.4	25
3.0SMCJ9.0	9.00	10.00	12.60	1	16.9	177.4	10
3.0SMCJ9.0A	9.00	10.00	11.50	1	15.4	194.8	10
3.0SMCJ10	10.00	11.10	14.10	1	18.8	159.6	5
3.0SMCJ10A	10.00	11.10	12.80	1	17.0	176.4	5
3.0SMCJ11	11.00	12.20	15.40	1	20.1	149.2	5
3.0SMCJ11A	11.00	12.20	14.00	1	18.2	184.8	5
3.0SMCJ12	12.00	13.30	16.90	1	22.0	136.4	5
3.0SMCJ12A	12.00	13.30	15.30	1	19.9	150.6	5
3.0SMCJ13	13.00	14.40	18.20	1	23.8	126.0	5
3.0SMCJ13A	13.00	14.40	16.50	1	21.5	139.4	5
3.0SMCJ14	14.00	15.60	19.80	1	25.8	116.2	5
3.0SMCJ14A	14.00	15.60	17.90	1	23.2	129.4	5
3.0SMCJ15	15.00	16.70	21.10	1	26.9	111.6	5
3.0SMCJ15A	15.00	16.70	19.20	1	24.4	123.0	5
3.0SMCJ16	16.00	17.80	22.60	1	28.8	104.2	5
3.0SMCJ16A	16.00	17.80	20.50	1	26.0	115.4	5
3.0SMCJ17	17.00	18.90	23.90	1	30.5	98.4	5
3.0SMCJ17A	17.00	18.90	21.70	1	27.6	106.6	5
3.0SMCJ18	18.00	20.00	25.30	1	32.2	93.2	5
3.0SMCJ18A	18.00	20.00	23.30	1	29.2	102.8	5
3.0SMCJ20	20.00	22.20	28.10	1	35.8	83.8	5
3.0SMCJ20A	20.00	22.20	25.50	1	32.4	92.6	5
3.0SMCJ22	22.00	24.40	30.90	1	39.4	76.2	5
3.0SMCJ22A	22.00	24.40	28.00	1	35.5	84.4	5
3.0SMCJ24	24.00	26.70	33.80	1	43.0	69.8	5
3.0SMCJ24A	24.00	26.70	30.70	1	38.9	77.2	5
3.0SMCJ26	26.00	28.90	36.60	1	46.6	64.4	5
3.0SMCJ26A	26.00	28.90	33.20	1	42.1	71.2	5
3.0SMCJ28	28.00	31.10	39.40	1	50.0	60.0	5
3.0SMCJ28A	28.00	31.10	35.80	1	45.4	66.0	5
3.0SMCJ30	30.00	33.30	42.20	1	53.5	56.0	5
3.0SMCJ30A	30.00	33.30	38.30	1	48.4	62.0	5
3.0SMCJ33	33.00	36.70	46.50	1	59.0	50.4	5
3.0SMCJ33A	33.00	36.70	42.20	1	53.3	56.2	5
3.0SMCJ36	36.00	40.00	50.70	1	64.3	46.6	5
3.0SMCJ36A	36.00	40.00	46.00	1	58.1	51.6	5
3.0SMCJ40	40.00	44.40	56.30	1	71.4	42.0	5
3.0SMCJ40A	40.00	44.40	51.10	1	64.5	46.4	5
3.0SMCJ43	43.00	47.80	60.50	1	76.6	39.2	5
3.0SMCJ43A	43.00	47.80	54.90	1	69.4	43.2	5
3.0SMCJ45	45.00	50.00	63.30	1	80.3	37.4	5
3.0SMCJ45A	45.00	50.00	57.50	1	72.7	41.2	5
3.0SMCJ48	48.00	53.30	67.50	1	85.5	35.0	5
3.0SMCJ48A	48.00	53.30	61.30	1	77.4	38.8	5
3.0SMCJ51	51.00	56.70	71.80	1	91.1	37.0	5
3.0SMCJ51A	51.00	56.70	65.20	1	82.4	36.4	5
3.0SMCJ54	54.00	60.00	76.00	1	96.3	31.2	5
3.0SMCJ54A	54.00	60.00	69.00	1	87.1	34.4	5
3.0SMCJ58	58.00	64.40	81.60	1	103.0	29.2	5
3.0SMCJ58A	58.00	64.40	74.10	1	93.6	32.0	5
3.0SMCJ60	60.00	66.70	84.50	1	107.0	28.0	5
3.0SMCJ60A	60.00	66.70	76.70	1	96.8	31.0	5
3.0SMCJ64	64.00	71.10	90.10	1	114.0	26.4	5
3.0SMCJ64A	64.00	71.10	81.80	1	103.0	29.2	5
3.0SMCJ70	70.00	77.80	98.60	1	125.0	24.0	5
3.0SMCJ70A	70.00	77.80	89.50	1	113.0	26.6	5
3.0SMCJ75	75.00	83.30	105.70	1	134.0	22.4	5
3.0SMCJ75A	75.00	83.30	95.80	1	121.0	24.8	5
3.0SMCJ78	78.00	86.70	109.80	1	139.0	21.6	5
3.0SMCJ78A	78.00	86.70	99.70	1	126.0	22.8	5
3.0SMCJ85	85.00	94.40	119.20	1	151.0	19.8	5
3.0SMCJ85A	85.00	94.40	108.20	1	137.0	20.8	5
3.0SMCJ90	90.00	100.00	126.50	1	160.0	18.8	5
3.0SMCJ90A	90.00	100.00	115.50	1	146.0	20.6	5
3.0SMCJ100	100.00	111.00	141.00	1	179.0	16.6	5
3.0SMCJ100A	100.00	111.00	128.00	1	162.0	18.6	5
3.0SMCJ110	110.00	122.00	154.50	1	196.0	15.4	5
3.0SMCJ110A	110.00	122.00	140.50	1	177.0	16.8	5
3.0SMCJ120	120.00	133.00	169.00	1	214.0	14.0	5
3.0SMCJ120A	120.00	133.00	153.00	1	193.0	15.6	5
3.0SMCJ130	130.00	144.00	182.50	1	231.0	13.0	5
3.0SMCJ130A	130.00	144.00	165.50	1	209.0	14.4	5
3.0SMCJ150	150.00	167.00	211.50	1	269.0	11.2	5
3.0SMCJ150A	150.00	167.00	192.50	1	243.0	12.4	5
3.0SMCJ160	160.00	178.00	226.00	1	287.0	10.4	5
3.0SMCJ160A	160.00	178.00	205.00	1	259.0	11.6	5
3.0SMCJ170	170.00	189.00	239.50	1	304.0	9.8	5
3.0SMCJ170A	170.00	189.00	217.50	1	275.0	11.0	5

BI-DIRECTIONAL 3000 WATT SURFACE MOUNT TVS

BI-DIRECTIONAL PART NUMBER	REVERSE STAND-OFF VOLTAGE VRWM (V)	BREAKDOWN VOLTAGE VBR (V) MIN. @IT	BREAKDOWN VOLTAGE VBR (V) MAX. @IT	TEST CURRENT IT (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc (V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @VRWM IR (uA)
3.0SMCJ5.0C	5.00	6.40	7.55	10	9.6	312.5	2000
3.0SMCJ5.0CA	5.00	6.40	7.25	10	9.2	326.0	2000
3.0SMCJ6.0C	6.00	6.67	8.45	10	11.4	263.2	2000
3.0SMCJ6.0CA	6.00	6.67	7.67	10	10.3	291.3	2000
3.0SMCJ6.5C	6.50	7.22	9.14	10	12.3	243.9	1000
3.0SMCJ6.5CA	6.50	7.22	8.30	10	11.2	267.9	1000
3.0SMCJ7.0C	7.00	7.78	9.86	10	13.3	225.6	400
3.0SMCJ7.0CA	7.00	7.78	8.95	10	12.0	250.0	400
3.0SMCJ7.5C	7.50	8.33	10.67	1	14.3	209.8	200
3.0SMCJ7.5CA	7.50	8.33	9.58	1	12.9	232.6	200
3.0SMCJ8.0C	8.00	8.99	11.30	1	15.0	220.0	100
3.0SMCJ8.0CA	8.00	8.99	10.23	1	13.6	220.6	100
3.0SMCJ8.5C	8.50	9.44	11.92	1	15.9	188.8	50
3.0SMCJ8.5CA	8.50	9.44	10.82	1	14.4	208.4	50
3.0SMCJ9.0C	9.00	10.00	12.60	1	16.9	177.4	20
3.0SMCJ9.0CA	9.00	10.00	11.50	1	15.4	194.8	20
3.0SMCJ10C	10.00	11.10	14.10	1	18.8	159.6	5
3.0SMCJ10CA	10.00	11.10	12.80	1	17.0	176.4	5
3.0SMCJ11C	11.00	12.20	15.40	1	20.1	149.2	5
3.0SMCJ11CA	11.00	12.20	14.00	1	18.2	184.8	5
3.0SMCJ12C	12.00	13.30	16.90	1	22.0	136.4	5
3.0SMCJ12CA	12.00	13.30	15.30	1	19.9	150.6	5
3.0SMCJ13C	13.00	14.40	18.20	1	23.8	126.0	5
3.0SMCJ13CA	13.00	14.40	16.50	1	21.5	139.4	5
3.0SMCJ14C	14.00	15.60	19.80	1	25.8	116.2	5
3.0SMCJ14CA	14.00	15.60	17.90	1	23.2	129.4	5
3.0SMCJ15C	15.00	16.70	21.10	1	26.9	111.6	5
3.0SMCJ15CA	15.00	16.70	19.20	1	24.4	123.0	5
3.0SMCJ16C	16.00	17.80	22.60	1	28.8	104.2	5
3.0SMCJ16CA	16.00	17.80	20.50	1	26.0	115.4	5
3.0SMCJ17C	17.00	18.90	23.90	1	30.5	98.4	5
3.0SMCJ17CA	17.00	18.90	21.70	1	27.6	106.6	5
3.0SMCJ18C	18.00	20.00	25.30	1	32.2	93.2	5
3.0SMCJ18CA	18.00	20.00	23.30	1	29.2	102.8	5
3.0SMCJ20C	20.00	22.20	28.10	1	35.8	83.8	5
3.0SMCJ20CA	20.00	22.20	25.50	1	32.4	92.6	5
3.0SMCJ22C	22.00	24.40	30.90	1	39.4	76.2	5
3.0SMCJ22CA	22.00	24.40	28.00	1	35.5	84.4	5
3.0SMCJ24C	24.00	26.70	33.80	1	43.0	69.8	5
3.0SMCJ24CA	24.00	26.70	30.70	1	38.9	77.2	5
3.0SMCJ26C	26.00	28.90	36.60	1	46.6	64.4	5
3.0SMCJ26CA	26.00	28.90	33.20	1	42.1	71.2	5
3.0SMCJ28C	28.00	31.10	39.40	1	50.0	60.0	5
3.0SMCJ28CA	28.00	31.10	35.80	1	45.4	66.0	5
3.0SMCJ30C	30.00	33.30	42.20	1	53.5	56.0	5
3.0SMCJ30CA	30.00	33.30	38.30	1	48.4	62.0	5
3.0SMCJ33C	33.00	36.70	46.50	1	59.0	50.4	5
3.0SMCJ33CA	33.00	36.70	42.20	1	53.3	56.2	5
3.0SMCJ36C	36.00	40.00	50.70	1	64.3	46.6	5
3.0SMCJ36CA	36.00	40.00	46.00	1	58.1	51.6	5
3.0SMCJ40C	40.00	44.40	56.30	1	71.4	42.0	5
3.0SMCJ40CA	40.00	44.40	51.10	1	64.5	46.4	5
3.0SMCJ43C	43.00	47.80	60.50	1	76.6	39.2	5
3.0SMCJ43CA	43.00	47.80	54.90	1	69.4	43.2	5
3.0SMCJ45C	45.00	50.00	63.30	1	80.3	37.4	5
3.0SMCJ45CA	45.00	50.00	57.50	1	72.7	41.2	5
3.0SMCJ48C	48.00	53.30	67.50	1	85.5	35.0	5
3.0SMCJ48CA	48.00	53.30	61.30	1	77.4	38.8	5
3.0SMCJ51C	51.00	56.70	71.80	1	91.1	37.0	5
3.0SMCJ51CA	51.00	56.70	65.20	1	82.4	36.4	5
3.0SMCJ54C	54.00	60.00	76.00	1	96.3	31.2	5
3.0SMCJ54CA	54.00	60.00	69.00	1	87.1	34.4	5
3.0SMCJ58C	58.00	64.40	81.60	1	103.0	29.2	5
3.0SMCJ58CA	58.00	64.40	74.10	1	93.6	32.0	5
3.0SMCJ60C	60.00	66.70	84.50	1	107.0	28.0	5
3.0SMCJ60CA	60.00	66.70	76.70	1	96.8	31.0	5
3.0SMCJ64C	64.00	71.10	90.10	1	114.0	26.4	5
3.0SMCJ64CA	64.00	71.10	81.80	1	103.0	29.2	5
3.0SMCJ70C	70.00	77.80	98.60	1	125.0	24.0	5
3.0SMCJ70CA	70.00	77.80	89.50	1	113.0	26.6	5
3.0SMCJ75C	75.00	83.30	105.70	1	134.0	22.4	5
3.0SMCJ75CA	75.00	83.30	95.80	1	121.0	24.8	5
3.0SMCJ78C	78.00	86.70	109.80	1	139.0	21.6	5
3.0SMCJ78CA	78.00	86.70	99.70	1	126.0	22.8	5
3.0SMCJ85C	85.00	94.40	119.20	1	151.0	19.8	5
3.0SMCJ85CA	85.00	94.40	108.20	1	137.0	20.8	5
3.0SMCJ90C	90.00	100.00	126.50	1	160.0	18.8	5
3.0SMCJ90CA	90.00	100.00	115.50	1	146.0	20.6	5
3.0SMCJ100C	100.00	111.00	141.00	1	179.0	16.6	5
3.0SMCJ100CA	100.00	111.00	128.00	1	162.0	18.6	5
3.0SMCJ110C	110.00	122.00	154.50	1	196.0	15.4	5
3.0SMCJ110CA	110.00	122.00	140.50	1	177.0	16.8	5
3.0SMCJ120C	120.00	133.00	169.00	1	214.0	14.0	5
3.0SMCJ120CA	120.00	133.00	153.00	1	193.0	15.6	5
3.0SMCJ130C	130.00	144.00	182.50	1	231.0	13.0	5
3.0SMCJ130CA	130.00	144.00	165.50	1	209.0	14.4	5
3.0SMCJ150C	150.00	167.00	211.50	1	269.0	11.2	5
3.0SMCJ150CA	150.00	167.00	192.50	1	243.0	12.4	5
3.0SMCJ160C	160.00	178.00	226.00	1	287.0	10.4	5
3.0SMCJ160CA	160.00	178.00	205.00	1	259.0	11.6	5
3.0SMCJ170C	170.00	189.00	239.50	1	304.0	9.8	5
3.0SMCJ170CA	170.00	189.00	217.50	1	275.0	11.0	5