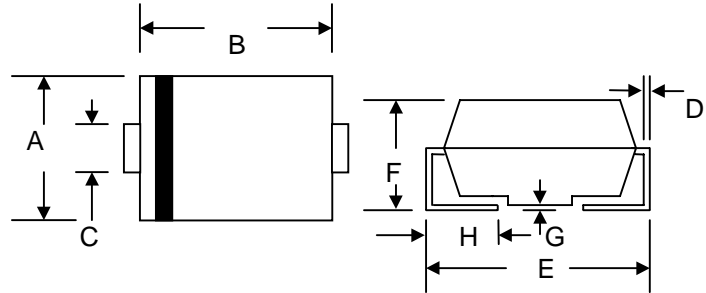


### Features

- Glass Passivated Die Construction
- 1500W 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	2.75	3.25
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 $\mu\text{S}$ Waveform (Note 1, 2) Figure 3	PPPM	1500 Minimum	W
Peak Pulse Current on 10/1000 $\mu\text{S}$ 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 8.0mm<sup>2</sup> 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.

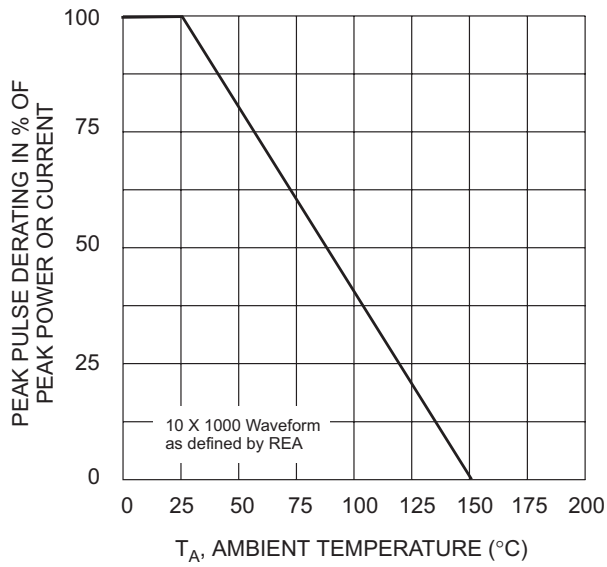


Fig. 1 Pulse Derating Curve

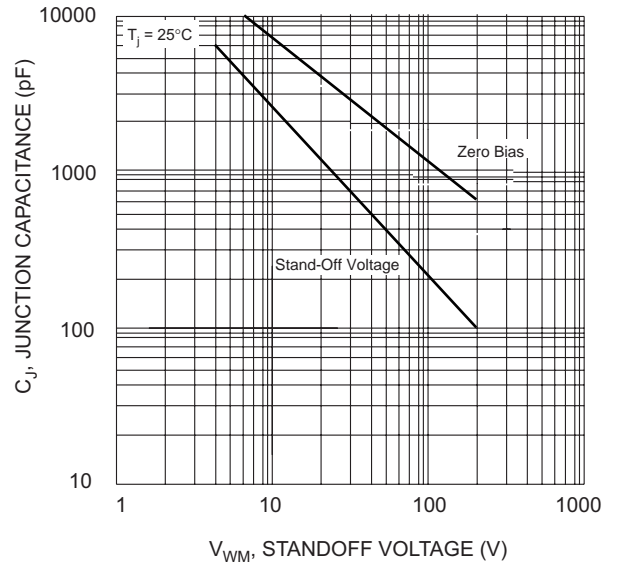


Fig. 2 Typical Junction Capacitance

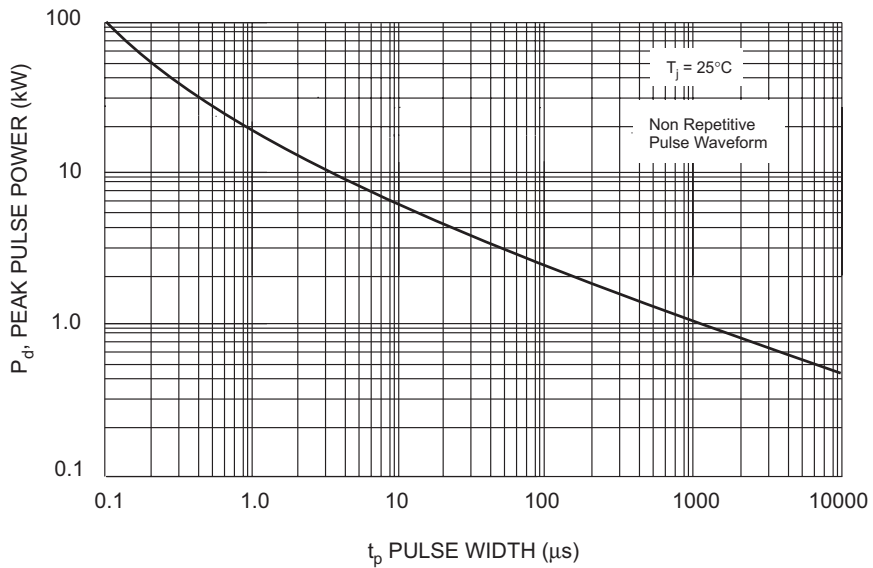


Fig. 3 Pulse Rating Curve

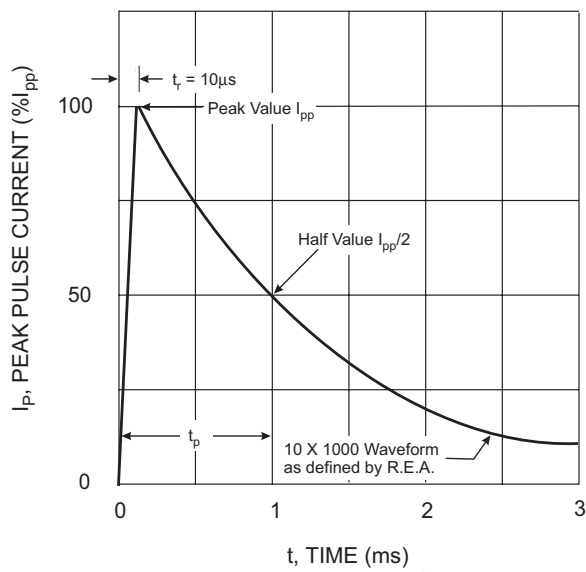


Fig. 4 Pulse Waveform

# UNI-DIRECTIONAL 1500 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)
1.5SMCJ5.0	5.00	6.40	7.55	10	9.6	156.2	1000
1.5SMCJ5.0A	5.00	6.40	7.25	10	9.2	163.0	1000
1.5SMCJ6.0	6.00	6.67	8.45	10	11.4	131.6	1000
1.5SMCJ6.0A	6.00	6.67	7.67	10	10.3	145.6	1000
1.5SMCJ6.5	6.50	7.22	9.14	10	12.3	122.0	500
1.5SMCJ6.5A	6.50	7.22	8.30	10	11.2	133.9	500
1.5SMCJ7.0	7.00	7.78	9.86	10	13.3	112.8	200
1.5SMCJ7.0A	7.00	7.78	8.95	10	12.0	125.0	200
1.5SMCJ7.5	7.50	8.33	10.67	1	14.3	104.9	100
1.5SMCJ7.5A	7.50	8.33	9.58	1	12.9	116.3	100
1.5SMCJ8.0	8.00	8.99	11.30	1	15.0	100.0	50
1.5SMCJ8.0A	8.00	8.99	10.23	1	13.6	110.3	50
1.5SMCJ8.5	8.50	9.44	11.92	1	15.9	94.3	25
1.5SMCJ8.5A	8.50	9.44	10.82	1	14.4	104.2	25
1.5SMCJ9.0	9.00	10.00	12.60	1	16.9	88.7	10
1.5SMCJ9.0A	9.00	10.00	11.50	1	15.4	97.4	10
1.5SMCJ10	10.00	11.10	14.10	1	18.8	79.8	5
1.5SMCJ10A	10.00	11.10	12.80	1	17.0	88.2	5
1.5SMCJ11	11.00	12.20	15.40	1	20.1	74.6	5
1.5SMCJ11A	11.00	12.20	14.00	1	18.2	82.4	5
1.5SMCJ12	12.00	13.30	16.90	1	22.0	68.2	5
1.5SMCJ12A	12.00	13.30	15.30	1	19.9	75.3	5
1.5SMCJ13	13.00	14.40	18.20	1	23.8	63.0	5
1.5SMCJ13A	13.00	14.40	16.50	1	21.5	69.7	5
1.5SMCJ14	14.00	15.60	19.80	1	25.8	58.1	5
1.5SMCJ14A	14.00	15.60	17.90	1	23.2	64.7	5
1.5SMCJ15	15.00	16.70	21.10	1	26.9	55.8	5
1.5SMCJ15A	15.00	16.70	19.20	1	24.4	61.5	5
1.5SMCJ16	16.00	17.80	22.60	1	28.8	52.1	5
1.5SMCJ16A	16.00	17.80	20.50	1	26.0	57.7	5
1.5SMCJ17	17.00	18.90	23.90	1	30.5	49.2	5
1.5SMCJ17A	17.00	18.90	21.70	1	27.6	53.3	5
1.5SMCJ18	18.00	20.00	25.30	1	32.2	46.6	5
1.5SMCJ18A	18.00	20.00	23.30	1	29.2	51.4	5
1.5SMCJ20	20.00	22.20	28.10	1	35.8	41.9	5
1.5SMCJ20A	20.00	22.20	25.50	1	32.4	46.3	5
1.5SMCJ22	22.00	24.40	30.90	1	39.4	38.1	5
1.5SMCJ22A	22.00	24.40	28.00	1	35.5	42.2	5
1.5SMCJ24	24.00	26.70	33.80	1	43.0	34.9	5
1.5SMCJ24A	24.00	26.70	30.70	1	38.9	38.6	5
1.5SMCJ26	26.00	28.90	36.60	1	46.6	32.2	5
1.5SMCJ26A	26.00	28.90	33.20	1	42.1	35.6	5
1.5SMCJ28	28.00	31.10	39.40	1	50.0	30.0	5
1.5SMCJ28A	28.00	31.10	35.80	1	45.4	33.0	5
1.5SMCJ30	30.00	33.30	42.20	1	53.5	28.0	5
1.5SMCJ30A	30.00	33.30	38.30	1	48.4	31.0	5
1.5SMCJ33	33.00	36.70	46.50	1	59.0	25.2	5
1.5SMCJ33A	33.00	36.70	42.20	1	53.3	28.1	5
1.5SMCJ36	36.00	40.00	50.70	1	64.3	23.3	5
1.5SMCJ36A	36.00	40.00	46.00	1	58.1	25.8	5
1.5SMCJ40	40.00	44.40	56.30	1	71.4	21.0	5
1.5SMCJ40A	40.00	44.40	51.10	1	64.5	23.2	5
1.5SMCJ43	43.00	47.80	60.50	1	76.6	19.6	5
1.5SMCJ43A	43.00	47.80	54.90	1	69.4	21.6	5
1.5SMCJ45	45.00	50.00	63.30	1	80.3	18.7	5
1.5SMCJ45A	45.00	50.00	57.50	1	72.7	20.6	5
1.5SMCJ48	48.00	53.30	67.50	1	85.5	17.5	5
1.5SMCJ48A	48.00	53.30	61.30	1	77.4	19.4	5
1.5SMCJ51	51.00	56.70	71.80	1	91.1	18.5	5
1.5SMCJ51A	51.00	56.70	65.20	1	82.4	18.2	5
1.5SMCJ54	54.00	60.00	76.00	1	96.3	15.6	5
1.5SMCJ54A	54.00	60.00	69.00	1	87.1	17.2	5
1.5SMCJ58	58.00	64.40	81.60	1	103.0	14.6	5
1.5SMCJ58A	58.00	64.40	74.10	1	93.6	16.0	5
1.5SMCJ60	60.00	66.70	84.50	1	107.0	14.0	5
1.5SMCJ60A	60.00	66.70	76.70	1	96.8	15.5	5
1.5SMCJ64	64.00	71.10	90.10	1	114.0	13.2	5
1.5SMCJ64A	64.00	71.10	81.80	1	103.0	14.6	5
1.5SMCJ70	70.00	77.80	98.60	1	125.0	12.0	5
1.5SMCJ70A	70.00	77.80	89.50	1	113.0	13.3	5
1.5SMCJ75	75.00	83.30	105.70	1	134.0	11.2	5
1.5SMCJ75A	75.00	83.30	95.80	1	121.0	12.4	5
1.5SMCJ78	78.00	86.70	109.80	1	139.0	10.8	5
1.5SMCJ78A	78.00	86.70	99.70	1	126.0	11.4	5
1.5SMCJ85	85.00	94.40	119.20	1	151.0	9.9	5
1.5SMCJ85A	85.00	94.40	108.20	1	137.0	10.4	5
1.5SMCJ90	90.00	100.00	126.50	1	160.0	9.4	5
1.5SMCJ90A	90.00	100.00	115.50	1	146.0	10.3	5
1.5SMCJ100	100.00	111.00	141.00	1	179.0	8.4	5
1.5SMCJ100A	100.00	111.00	128.00	1	162.0	9.3	5
1.5SMCJ110	110.00	122.00	154.50	1	196.0	7.7	5
1.5SMCJ110A	110.00	122.00	140.50	1	177.0	8.4	5
1.5SMCJ120	120.00	133.00	169.00	1	214.0	7.0	5
1.5SMCJ120A	120.00	133.00	153.00	1	193.0	7.9	5
1.5SMCJ130	130.00	144.00	182.50	1	231.0	6.5	5
1.5SMCJ130A	130.00	144.00	165.50	1	209.0	7.2	5
1.5SMCJ150	150.00	167.00	211.50	1	269.0	5.6	5
1.5SMCJ150A	150.00	167.00	192.50	1	243.0	6.2	5
1.5SMCJ160	160.00	178.00	226.00	1	287.0	5.2	5
1.5SMCJ160A	160.00	178.00	205.00	1	259.0	5.8	5
1.5SMCJ170	170.00	189.00	239.50	1	304.0	4.9	5
1.5SMCJ170A	170.00	189.00	217.50	1	275.0	5.5	5

## BI-DIRECTIONAL 1500 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)
1.5SMCJ5.0C	5.00	6.40	7.55	10	9.6	156.2	2000
1.5SMCJ5.0CA	5.00	6.40	7.25	10	9.2	163.0	2000
1.5SMCJ6.0C	6.00	6.67	8.45	10	11.4	131.6	2000
1.5SMCJ6.0CA	6.00	6.67	7.67	10	10.3	145.6	2000
1.5SMCJ6.5C	6.50	7.22	9.14	10	12.3	122.0	1000
1.5SMCJ6.5CA	6.50	7.22	8.30	10	11.2	133.9	1000
1.5SMCJ7.0C	7.00	7.78	9.86	10	13.3	112.8	400
1.5SMCJ7.0CA	7.00	7.78	8.95	10	12.0	125.0	400
1.5SMCJ7.5C	7.50	8.33	10.67	1	14.3	104.9	200
1.5SMCJ7.5CA	7.50	8.33	9.58	1	12.9	116.3	200
1.5SMCJ8.0C	8.00	8.99	11.30	1	15.0	100.0	100
1.5SMCJ8.0CA	8.00	8.99	10.23	1	13.6	110.3	100
1.5SMCJ8.5C	8.50	9.44	11.92	1	15.9	94.3	50
1.5SMCJ8.5CA	8.50	9.44	10.82	1	14.4	104.2	50
1.5SMCJ9.0C	9.00	10.00	12.60	1	16.9	88.7	20
1.5SMCJ9.0CA	9.00	10.00	11.50	1	15.4	97.4	20
1.5SMCJ10C	10.00	11.10	14.10	1	18.8	79.8	5
1.5SMCJ10CA	10.00	11.10	12.80	1	17.0	88.2	5
1.5SMCJ11C	11.00	12.20	15.40	1	20.1	74.6	5
1.5SMCJ11CA	11.00	12.20	14.00	1	18.2	82.4	5
1.5SMCJ12C	12.00	13.30	16.90	1	22.0	68.2	5
1.5SMCJ12CA	12.00	13.30	15.30	1	19.9	75.3	5
1.5SMCJ13C	13.00	14.40	18.20	1	23.8	63.0	5
1.5SMCJ13CA	13.00	14.40	16.50	1	21.5	69.7	5
1.5SMCJ14C	14.00	15.60	19.80	1	25.8	58.1	5
1.5SMCJ14CA	14.00	15.60	17.90	1	23.2	64.7	5
1.5SMCJ15C	15.00	16.70	21.10	1	26.9	55.8	5
1.5SMCJ15CA	15.00	16.70	19.20	1	24.4	61.5	5
1.5SMCJ16C	16.00	17.80	22.60	1	28.8	52.1	5
1.5SMCJ16CA	16.00	17.80	20.50	1	26.0	57.7	5
1.5SMCJ17C	17.00	18.90	23.90	1	30.5	49.2	5
1.5SMCJ17CA	17.00	18.90	21.70	1	27.6	53.3	5
1.5SMCJ18C	18.00	20.00	25.30	1	32.2	46.6	5
1.5SMCJ18CA	18.00	20.00	23.30	1	29.2	51.4	5
1.5SMCJ20C	20.00	22.20	28.10	1	35.8	41.9	5
1.5SMCJ20CA	20.00	22.20	25.50	1	32.4	46.3	5
1.5SMCJ22C	22.00	24.40	30.90	1	39.4	38.1	5
1.5SMCJ22CA	22.00	24.40	28.00	1	35.5	42.2	5
1.5SMCJ24C	24.00	26.70	33.80	1	43.0	34.9	5
1.5SMCJ24CA	24.00	26.70	30.70	1	38.9	38.6	5
1.5SMCJ26C	26.00	28.90	36.60	1	46.6	32.2	5
1.5SMCJ26CA	26.00	28.90	33.20	1	42.1	35.6	5
1.5SMCJ28C	28.00	31.10	39.40	1	50.1	30.0	5
1.5SMCJ28CA	28.00	31.10	35.80	1	45.4	33.0	5
1.5SMCJ30C	30.00	33.30	42.20	1	53.5	28.0	5
1.5SMCJ30CA	30.00	33.30	38.30	1	48.4	31.0	5
1.5SMCJ33C	33.00	36.70	46.50	1	59.0	25.2	5
1.5SMCJ33CA	33.00	36.70	42.20	1	53.3	28.1	5
1.5SMCJ36C	36.00	40.00	50.70	1	64.3	23.3	5
1.5SMCJ36CA	36.00	40.00	46.00	1	58.1	25.8	5
1.5SMCJ40C	40.00	44.40	56.30	1	71.4	21.0	5
1.5SMCJ40CA	40.00	44.40	51.10	1	64.5	23.2	5
1.5SMCJ43C	43.00	47.80	60.50	1	76.6	19.6	5
1.5SMCJ43CA	43.00	47.80	54.90	1	69.4	21.6	5
1.5SMCJ45C	45.00	50.00	63.30	1	80.3	18.7	5
1.5SMCJ45CA	45.00	50.00	57.50	1	72.7	20.6	5
1.5SMCJ48C	48.00	53.30	67.50	1	85.5	17.5	5
1.5SMCJ48CA	48.00	53.30	61.30	1	77.4	19.4	5
1.5SMCJ51C	51.00	56.70	71.80	1	91.1	18.5	5
1.5SMCJ51CA	51.00	56.70	65.20	1	82.4	18.2	5
1.5SMCJ54C	54.00	60.00	76.00	1	96.3	15.6	5
1.5SMCJ54CA	54.00	60.00	69.00	1	87.1	17.2	5
1.5SMCJ58C	58.00	64.40	81.60	1	103.0	14.6	5
1.5SMCJ58CA	58.00	64.40	74.10	1	93.6	16.0	5
1.5SMCJ60C	60.00	66.70	84.50	1	107.0	14.0	5
1.5SMCJ60CA	60.00	66.70	76.70	1	96.8	15.5	5
1.5SMCJ64C	64.00	71.10	90.10	1	114.0	13.2	5
1.5SMCJ64CA	64.00	71.10	81.80	1	103.0	14.6	5
1.5SMCJ70C	70.00	77.80	98.60	1	125.0	12.0	5
1.5SMCJ70CA	70.00	77.80	89.50	1	113.0	13.3	5
1.5SMCJ75C	75.00	83.30	105.70	1	134.0	11.2	5
1.5SMCJ75CA	75.00	83.30	95.80	1	121.0	12.4	5
1.5SMCJ78C	78.00	86.70	109.80	1	139.0	10.8	5
1.5SMCJ78CA	78.00	86.70	99.70	1	126.0	11.4	5
1.5SMCJ85C	85.00	94.40	119.20	1	151.0	9.9	5
1.5SMCJ85CA	85.00	94.40	108.20	1	137.0	10.4	5
1.5SMCJ90C	90.00	100.00	126.50	1	160.0	9.4	5
1.5SMCJ90CA	90.00	100.00	115.50	1	146.0	10.3	5
1.5SMCJ100C	100.00	111.00	141.00	1	179.0	8.4	5
1.5SMCJ100CA	100.00	111.00	128.00	1	162.0	9.3	5
1.5SMCJ110C	110.00	122.00	154.50	1	196.0	7.7	5
1.5SMCJ110CA	110.00	122.00	140.50	1	177.0	8.4	5
1.5SMCJ120C	120.00	133.00	169.00	1	214.0	7.0	5
1.5SMCJ120CA	120.00	133.00	153.00	1	193.0	7.9	5
1.5SMCJ130C	130.00	144.00	182.50	1	231.0	6.5	5
1.5SMCJ130CA	130.00	144.00	165.50	1	209.0	7.2	5
1.5SMCJ150C	150.00	167.00	211.50	1	269.0	5.6	5
1.5SMCJ150CA	150.00	167.00	192.50	1	243.0	6.2	5
1.5SMCJ160C	160.00	178.00	226.00	1	287.0	5.2	5
1.5SMCJ160CA	160.00	178.00	205.00	1	259.0	5.8	5
1.5SMCJ170C	170.00	189.00	239.50	1	304.0	4.9	5
1.5SMCJ170CA	170.00	189.00	217.50	1	275.0	5.5	5