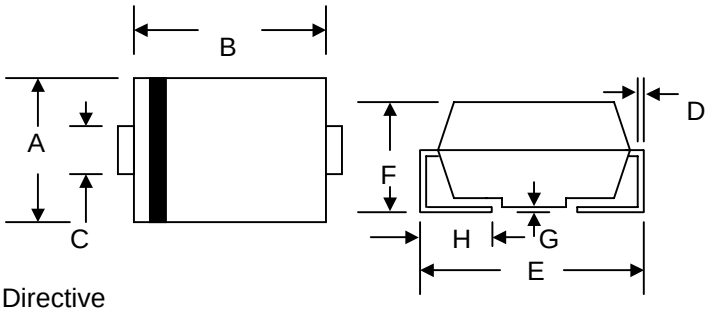
Data Sheet 5008, Rev. - ***Green Products***

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
- UL Recognized File # E224235
- Green Products in Compliance with the RoHS Directive



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**	**Min**	**Max**
A	5.59	6.22	0.220	0.245
B	6.60	7.11	0.260	0.280
C	2.75	3.25	0.108	0.128
D	0.152	0.305	0.006	0.012
E	7.75	8.13	0.305	0.320
F	2.00	2.62	0.079	0.103
G	0.051	0.203	0.002	0.008
H	0.76	1.27	0.030	0.05
	In mm		**In inch**	

"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°C unless otherwise specified

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

Note: 1. Non-repetitive current pulse, per Figure 3 and derated above T_A = 25°C per Figure 2
2. Mounted on 8.0mm^2 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

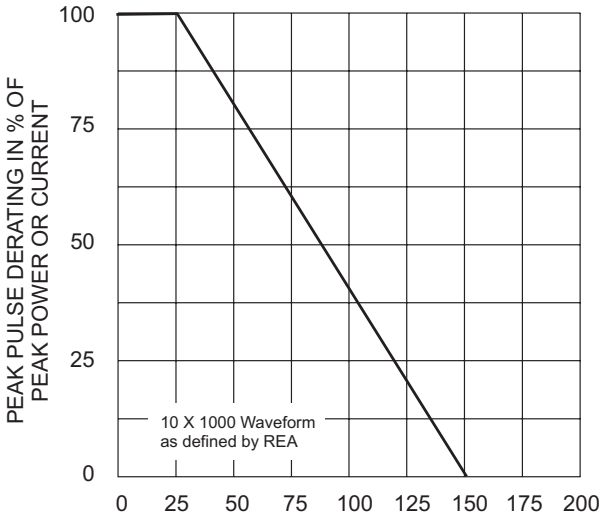


Fig. 1 Pulse Derating Curve

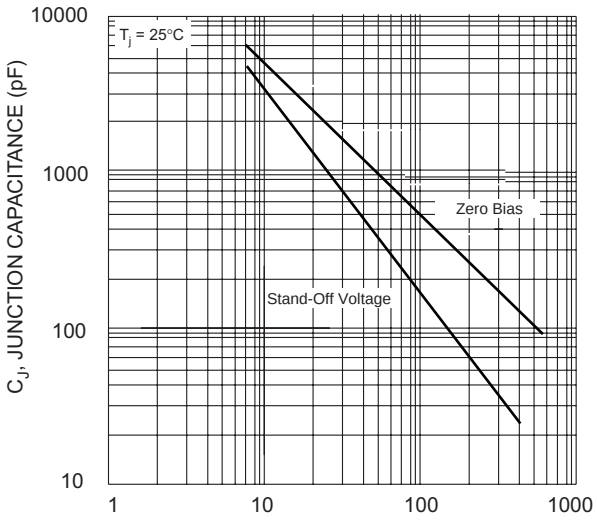


Fig. 2 Typical Junction Capacitance

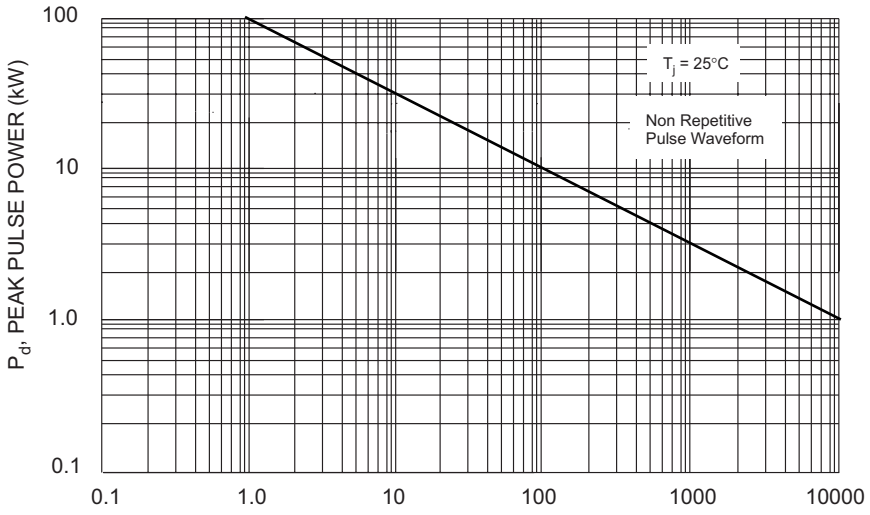


Fig. 3 Pulse Rating Curve

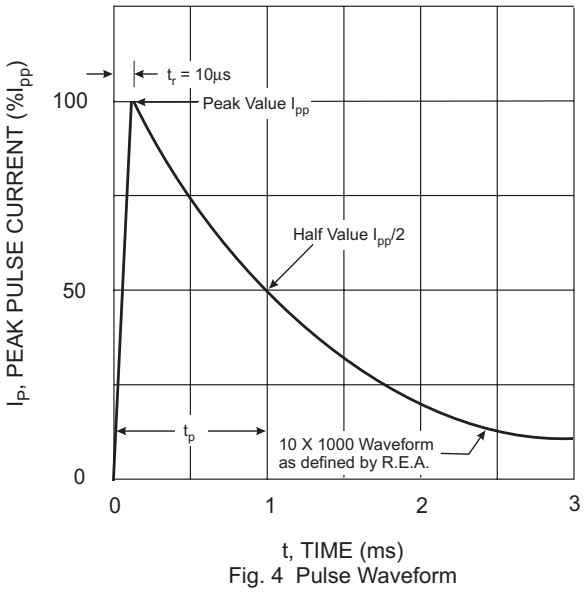


Fig. 4 Pulse Waveform

UNI-DIRECTIONAL 3000 WATT SURFACE MOUNT TVS

UNI-DIRECTIONAL PART NO.	DEVICE MARKING CODE	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-G	HDD	5.00	6.40	7.55	10	9.6	312.5	1000
3.0SMCJ5.0A-G	HDE	5.00	6.40	7.25	10	9.2	326.0	1000
3.0SMCJ6.0-G	HDF	6.00	6.67	8.45	10	11.4	263.2	1000
3.0SMCJ6.0A-G	HDG	6.00	6.67	7.67	10	10.3	291.3	1000
3.0SMCJ6.5-G	HDH	6.50	7.22	9.14	10	12.3	243.9	500
3.0SMCJ6.5A-G	HDK	6.50	7.22	8.30	10	11.2	267.9	500
3.0SMCJ7.0-G	HDL	7.00	7.78	9.86	10	13.3	225.6	200
3.0SMCJ7.0A-G	HDM	7.00	7.78	8.95	10	12.0	250.0	200
3.0SMCJ7.5-G	HDN	7.50	8.33	10.67	1	14.3	209.8	100
3.0SMCJ7.5A-G	HDP	7.50	8.33	9.58	1	12.9	232.6	100
3.0SMCJ8.0-G	HDQ	8.00	8.99	11.30	1	15.0	220.0	50
3.0SMCJ8.0A-G	HDR	8.00	8.99	10.23	1	13.6	220.6	50
3.0SMCJ8.5-G	HDS	8.50	9.44	11.92	1	15.9	188.8	25
3.0SMCJ8.5A-G	HDT	8.50	9.44	10.82	1	14.4	208.4	25
3.0SMCJ9.0-G	HDU	9.00	10.00	12.60	1	16.9	177.4	10
3.0SMCJ9.0A-G	HDV	9.00	10.00	11.50	1	15.4	194.8	10
3.0SMCJ10-G	HDW	10.00	11.10	14.10	1	18.8	159.6	5
3.0SMCJ10A-G	HDX	10.00	11.10	12.80	1	17.0	176.4	5
3.0SMCJ11-G	HDY	11.00	12.20	15.40	1	20.1	149.2	5
3.0SMCJ11A-G	HDZ	11.00	12.20	14.00	1	18.2	184.8	5
3.0SMCJ12-G	HED	12.00	13.30	16.90	1	22.0	136.4	5
3.0SMCJ12A-G	HEE	12.00	13.30	15.30	1	19.9	150.6	5
3.0SMCJ13-G	HEF	13.00	14.40	18.20	1	23.8	126.0	5
3.0SMCJ13A-G	HEG	13.00	14.40	16.50	1	21.5	139.4	5
3.0SMCJ14-G	HEH	14.00	15.60	19.80	1	25.8	116.2	5
3.0SMCJ14A-G	HEK	14.00	15.60	17.90	1	23.2	129.4	5
3.0SMCJ15-G	HEL	15.00	16.70	21.10	1	26.9	111.6	5
3.0SMCJ15A-G	HEM	15.00	16.70	19.20	1	24.4	123.0	5
3.0SMCJ16-G	HEN	16.00	17.80	22.60	1	28.8	104.2	5
3.0SMCJ16A-G	HEP	16.00	17.80	20.50	1	26.0	115.4	5
3.0SMCJ17-G	HEQ	17.00	18.90	23.90	1	30.5	98.4	5
3.0SMCJ17A-G	HER	17.00	18.90	21.70	1	27.6	106.6	5
3.0SMCJ18-G	HES	18.00	20.00	25.30	1	32.2	93.2	5
3.0SMCJ18A-G	HET	18.00	20.00	23.30	1	29.2	102.8	5
3.0SMCJ20-G	HEU	20.00	22.20	28.10	1	35.8	83.8	5
3.0SMCJ20A-G	HEV	20.00	22.20	25.50	1	32.4	92.6	5
3.0SMCJ22-G	HEW	22.00	24.40	30.90	1	39.4	76.2	5
3.0SMCJ22A-G	HEX	22.00	24.40	28.00	1	35.5	84.4	5
3.0SMCJ24-G	HEY	24.00	26.70	33.80	1	43.0	69.8	5
3.0SMCJ24A-G	HEZ	24.00	26.70	30.70	1	38.9	77.2	5
3.0SMCJ26-G	HFD	26.00	28.90	36.60	1	46.6	64.4	5
3.0SMCJ26A-G	HFE	26.00	28.90	33.20	1	42.1	71.2	5
3.0SMCJ28-G	HFF	28.00	31.10	39.40	1	50.0	60.0	5
3.0SMCJ28A-G	HFG	28.00	31.10	35.80	1	45.4	66.0	5
3.0SMCJ30-G	HFH	30.00	33.30	42.20	1	53.5	56.0	5
3.0SMCJ30A-G	HFK	30.00	33.30	38.30	1	48.4	62.0	5
3.0SMCJ33-G	HFL	33.00	36.70	46.50	1	59.0	50.4	5
3.0SMCJ33A-G	HFM	33.00	36.70	42.20	1	53.3	56.2	5
3.0SMCJ36-G	HFN	36.00	40.00	50.70	1	64.3	46.6	5
3.0SMCJ36A-G	HFP	36.00	40.00	46.00	1	58.1	51.6	5
3.0SMCJ40-G	HFQ	40.00	44.40	56.30	1	71.4	42.0	5
3.0SMCJ40A-G	HFR	40.00	44.40	51.10	1	64.5	46.4	5
3.0SMCJ43-G	HFS	43.00	47.80	60.50	1	76.6	39.2	5
3.0SMCJ43A-G	HFT	43.00	47.80	54.90	1	69.4	43.2	5
3.0SMCJ45-G	HFU	45.00	50.00	63.30	1	80.3	37.4	5
3.0SMCJ45A-G	HFV	45.00	50.00	57.50	1	72.7	41.2	5
3.0SMCJ48-G	HFW	48.00	53.30	67.50	1	85.5	35.0	5
3.0SMCJ48A-G	HFX	48.00	53.30	61.30	1	77.4	38.8	5
3.0SMCJ51-G	HFY	51.00	56.70	71.80	1	91.1	37.0	5
3.0SMCJ51A-G	HFZ	51.00	56.70	65.20	1	82.4	36.4	5
3.0SMCJ54-G	HGD	54.00	60.00	76.00	1	96.3	31.2	5
3.0SMCJ54A-G	HGE	54.00	60.00	69.00	1	87.1	34.4	5
3.0SMCJ58-G	HGF	58.00	64.40	81.60	1	103.0	29.2	5
3.0SMCJ58A-G	HGG	58.00	64.40	74.10	1	93.6	32.0	5
3.0SMCJ60-G	HGH	60.00	66.70	84.50	1	107.0	28.0	5
3.0SMCJ60A-G	HGK	60.00	66.70	76.70	1	96.8	31.0	5
3.0SMCJ64-G	HGL	64.00	71.10	90.10	1	114.0	26.4	5
3.0SMCJ64A-G	HGM	64.00	71.10	81.80	1	103.0	29.2	5
3.0SMCJ70-G	HGN	70.00	77.80	98.60	1	125.0	24.0	5
3.0SMCJ70A-G	HGP	70.00	77.80	89.50	1	113.0	26.6	5
3.0SMCJ75-G	HGQ	75.00	83.30	105.70	1	134.0	22.4	5
3.0SMCJ75A-G	HGR	75.00	83.30	95.80	1	121.0	24.8	5
3.0SMCJ78-G	HGS	78.00	86.70	109.80	1	139.0	21.6	5
3.0SMCJ78A-G	HGT	78.00	86.70	99.70	1	126.0	22.8	5
3.0SMCJ85-G	HGU	85.00	94.40	119.20	1	151.0	19.8	5
3.0SMCJ85A-G	HGV	85.00	94.40	108.20	1	137.0	20.8	5
3.0SMCJ90-G	HGW	90.00	100.00	126.50	1	160.0	18.8	5
3.0SMCJ90A-G	HGX	90.00	100.00	115.50	1	146.0	20.6	5
3.0SMCJ100-G	HGY	100.00	111.00	141.00	1	179.0	16.6	5
3.0SMCJ100A-G	HGZ	100.00	111.00	128.00	1	162.0	18.6	5
3.0SMCJ110-G	HHD	110.00	122.00	154.50	1	196.0	15.4	5
3.0SMCJ110A-G	HHE	110.00	122.00	140.50	1	177.0	16.8	5
3.0SMCJ120-G	HHF	120.00	133.00	169.00	1	214.0	14.0	5
3.0SMCJ120A-G	HHG	120.00	133.00	153.00	1	193.0	15.6	5
3.0SMCJ130-G	HHH	130.00	144.00	182.50	1	231.0	13.0	5
3.0SMCJ130A-G	HHK	130.00	144.00	165.50	1	209.0	14.4	5
3.0SMCJ150-G	HHL	150.00	167.00	211.50	1	269.0	11.2	5
3.0SMCJ150A-G	HHM	150.00	167.00	192.50	1	243.0	12.4	5
3.0SMCJ160-G	HHN	160.00	178.00	226.00	1	287.0	10.4	5
3.0SMCJ160A-G	HHP	160.00	178.00	205.00	1	259.0	11.6	5
3.0SMCJ170-G	HHQ	170.00	189.00	239.50	1	304.0	9.8	5
3.0SMCJ170A-G	HHR	170.00	189.00	217.50	1	275.0	11.0	5

BI-DIRECTIONAL 3000 WATT SURFACE MOUNT TVS

BI-DIRECTIONAL PART NO.	DEVICE MARKING CODE	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-G	IDD	5.00	6.40	7.55	10	9.6	312.5	2000
3.0SMCJ5.0CA-G	IDE	5.00	6.40	7.25	10	9.2	326.0	2000
3.0SMCJ6.0C-G	IDF	6.00	6.67	8.45	10	11.4	263.2	2000
3.0SMCJ6.0CA-G	IDG	6.00	6.67	7.67	10	10.3	291.3	2000
3.0SMCJ6.5C-G	IDH	6.50	7.22	9.14	10	12.3	243.9	1000
3.0SMCJ6.5CA-G	IDK	6.50	7.22	8.30	10	11.2	267.9	1000
3.0SMCJ7.0C-G	IDL	7.00	7.78	9.86	10	13.3	225.6	400
3.0SMCJ7.0CA-G	IDM	7.00	7.78	8.95	10	12.0	250.0	400
3.0SMCJ7.5C-G	IDN	7.50	8.33	10.67	1	14.3	209.8	200
3.0SMCJ7.5CA-G	IDP	7.50	8.33	9.58	1	12.9	232.6	200
3.0SMCJ8.0C-G	IDQ	8.00	8.99	11.30	1	15.0	220.0	100
3.0SMCJ8.0CA-G	IDR	8.00	8.99	10.23	1	13.6	220.6	100
3.0SMCJ8.5C-G	IDS	8.50	9.44	11.92	1	15.9	188.8	50
3.0SMCJ8.5CA-G	IDT	8.50	9.44	10.82	1	14.4	208.4	50
3.0SMCJ9.0C-G	IDU	9.00	10.00	12.60	1	16.9	177.4	20
3.0SMCJ9.0CA-G	IDV	9.00	10.00	11.50	1	15.4	194.8	20
3.0SMCJ10C-G	IDW	10.00	11.10	14.10	1	18.8	159.6	5
3.0SMCJ10CA-G	IDX	10.00	11.10	12.80	1	17.0	176.4	5
3.0SMCJ11C-G	IDY	11.00	12.20	15.40	1	20.1	149.2	5
3.0SMCJ11CA-G	IDZ	11.00	12.20	14.00	1	18.2	184.8	5
3.0SMCJ12C-G	IED	12.00	13.30	16.90	1	22.0	136.4	5
3.0SMCJ12CA-G	IEE	12.00	13.30	15.30	1	19.9	150.6	5
3.0SMCJ13C-G	IEF	13.00	14.40	18.20	1	23.8	126.0	5
3.0SMCJ13CA-G	IEG	13.00	14.40	16.50	1	21.5	139.4	5
3.0SMCJ14C-G	IEH	14.00	15.60	19.80	1	25.8	116.2	5
3.0SMCJ14CA-G	IEK	14.00	15.60	17.90	1	23.2	129.4	5
3.0SMCJ15C-G	IEL	15.00	16.70	21.10	1	26.9	111.6	5
3.0SMCJ15CA-G	IEM	15.00	16.70	19.20	1	24.4	123.0	5
3.0SMCJ16C-G	IEN	16.00	17.80	22.60	1	28.8	104.2	5
3.0SMCJ16CA-G	IEP	16.00	17.80	20.50	1	26.0	115.4	5
3.0SMCJ17C-G	IEQ	17.00	18.90	23.90	1	30.5	98.4	5
3.0SMCJ17CA-G	IER	17.00	18.90	21.70	1	27.6	106.6	5
3.0SMCJ18C-G	IES	18.00	20.00	25.30	1	32.2	93.2	5
3.0SMCJ18CA-G	IET	18.00	20.00	23.30	1	29.2	102.8	5
3.0SMCJ20C-G	IEU	20.00	22.20	28.10	1	35.8	83.8	5
3.0SMCJ20CA-G	IEV	20.00	22.20	25.50	1	32.4	92.6	5
3.0SMCJ22C-G	IEW	22.00	24.40	30.90	1	39.4	76.2	5
3.0SMCJ22CA-G	IEX	22.00	24.40	28.00	1	35.5	84.4	5
3.0SMCJ24C-G	IEY	24.00	26.70	33.80	1	43.0	69.8	5
3.0SMCJ24CA-G	IEZ	24.00	26.70	30.70	1	38.9	77.2	5
3.0SMCJ26C-G	IFD	26.00	28.90	36.60	1	46.6	64.4	5
3.0SMCJ26CA-G	IFE	26.00	28.90	33.20	1	42.1	71.2	5
3.0SMCJ28C-G	IFF	28.00	31.10	39.40	1	50.0	60.0	5
3.0SMCJ28CA-G	IFG	28.00	31.10	35.80	1	45.4	66.0	5
3.0SMCJ30C-G	IFH	30.00	33.30	42.20	1	53.5	56.0	5
3.0SMCJ30CA-G	IFK	30.00	33.30	38.30	1	48.4	62.0	5
3.0SMCJ33C-G	IFL	33.00	36.70	46.50	1	59.0	50.4	5
3.0SMCJ33CA-G	IFM	33.00	36.70	42.20	1	53.3	56.2	5
3.0SMCJ36C-G	IFN	36.00	40.00	50.70	1	64.3	46.6	5
3.0SMCJ36CA-G	IFP	36.00	40.00	46.00	1	58.1	51.6	5
3.0SMCJ40C-G	IFQ	40.00	44.40	56.30	1	71.4	42.0	5
3.0SMCJ40CA-G	IFR	40.00	44.40	51.10	1	64.5	46.4	5
3.0SMCJ43C-G	IFS	43.00	47.80	60.50	1	76.6	39.2	5
3.0SMCJ43CA-G	IFT	43.00	47.80	54.90	1	69.4	43.2	5
3.0SMCJ45C-G	IFU	45.00	50.00	63.30	1	80.3	37.4	5
3.0SMCJ45CA-G	IFV	45.00	50.00	57.50	1	72.7	41.2	5
3.0SMCJ48C-G	IFW	48.00	53.30	67.50	1	85.5	35.0	5
3.0SMCJ48CA-G	IFX	48.00	53.30	61.30	1	77.4	38.8	5
3.0SMCJ51C-G	IFY	51.00	56.70	71.80	1	91.1	37.0	5
3.0SMCJ51CA-G	IFZ	51.00	56.70	65.20	1	82.4	36.4	5
3.0SMCJ54C-G	IGD	54.00	60.00	76.00	1	96.3	31.2	5
3.0SMCJ54CA-G	IGE	54.00	60.00	69.00	1	87.1	34.4	5
3.0SMCJ58C-G	IGF	58.00	64.40	81.60	1	103.0	29.2	5
3.0SMCJ58CA-G	IGG	58.00	64.40	74.10	1	93.6	32.0	5
3.0SMCJ60C-G	IGH	60.00	66.70	84.50	1	107.0	28.0	5
3.0SMCJ60CA-G	IGK	60.00	66.70	76.70	1	96.8	31.0	5
3.0SMCJ64C-G	IGL	64.00	71.10	90.10	1	114.0	26.4	5
3.0SMCJ64CA-G	IGM	64.00	71.10	81.80	1	103.0	29.2	5
3.0SMCJ70C-G	IGN	70.00	77.80	98.60	1	125.0	24.0	5
3.0SMCJ70CA-G	IGP	70.00	77.80	89.50	1	113.0	26.6	5
3.0SMCJ75C-G	IGQ	75.00	83.30	105.70	1	134.0	22.4	5
3.0SMCJ75CA-G	IGR	75.00	83.30	95.80	1	121.0	24.8	5
3.0SMCJ78C-G	IGS	78.00	86.70	109.80	1	139.0	21.6	5
3.0SMCJ78CA-G	IGT	78.00	86.70	99.70	1	126.0	22.8	5
3.0SMCJ85C-G	IGU	85.00	94.40	119.20	1	151.0	19.8	5
3.0SMCJ85CA-G	IGV	85.00	94.40	108.20	1	137.0	20.8	5
3.0SMCJ90C-G	IGW	90.00	100.00	126.50	1	160.0	18.8	5
3.0SMCJ90CA-G	IGX	90.00	100.00	115.50	1	146.0	20.6	5
3.0SMCJ100C-G	IGY	100.00	111.00	141.00	1	179.0	16.6	5
3.0SMCJ100CA-G	IGZ	100.00	111.00	128.00	1	162.0	18.6	5
3.0SMCJ110C-G	IHD	110.00	122.00	154.50	1	196.0	15.4	5
3.0SMCJ110CA-G	IHE	110.00	122.00	140.50	1	177.0	16.8	5
3.0SMCJ120C-G	IHF	120.00	133.00	169.00	1	214.0	14.0	5
3.0SMCJ120CA-G	IHG	120.00	133.00	153.00	1	193.0	15.6	5
3.0SMCJ130C-G	IHH	130.00	144.00	182.50	1	231.0	13.0	5
3.0SMCJ130CA-G	IHK	130.00	144.00	165.50	1	209.0	14.4	5
3.0SMCJ150C-G	IHL	150.00	167.00	211.50	1	269.0	11.2	5
3.0SMCJ150CA-G	IHM	150.00	167.00	192.50	1	243.0	12.4	5
3.0SMCJ160C-G	IHN	160.00	178.00	226.00	1	287.0	10.4	5
3.0SMCJ160CA-G	IHP	160.00	178.00	205.00	1	259.0	11.6	5
3.0SMCJ170C-G	IHQ	170.00	189.00	239.50	1	304.0	9.8	5
3.0SMCJ170CA-G	IHR	170.00	189.00	217.50	1	275.0	11.0	5