

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Type Number	Symbol	Value	Units	
Peak Power Dissipation at T _A =25 ^o C, Tp=1ms (Note 1)	P _{PK}	Minimum 1500	Watts	
Steady State Power Dissipation	Pd	5	Watts	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) (Note 2, 3) - Unidirectional Only	I _{FSM}	200	Amps	
Maximum Instantaneous Forward Voltage at 100.0A for Unidirectional Only (Note 4)	V _F	3.5 / 5.0	Volts	
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to + 150	°C	

Notes: 1. Non-repetitive Current Pulse Per Fig. 3 and Derated above $T_A=25^{\circ}C$ Per Fig. 2.

2. Mounted on 0.6 x 0.6" (16 x 16mm) Copper Pads to Each Terminal.

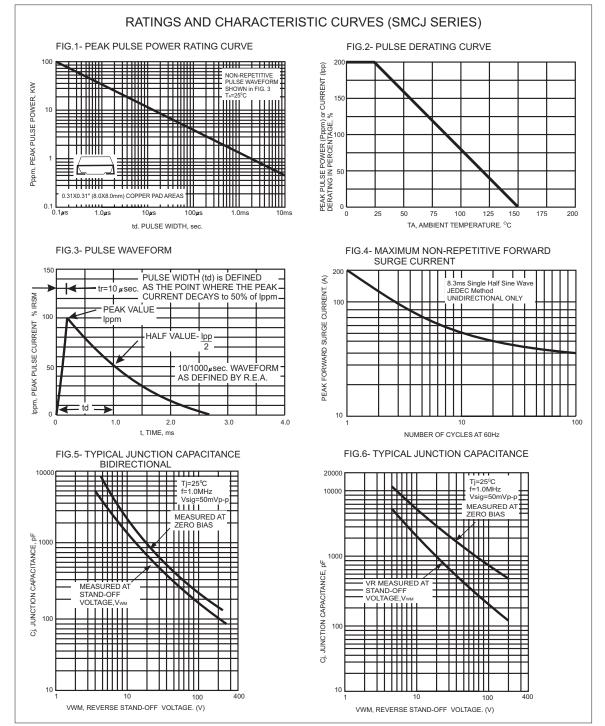
3. 8.3ms Single Half Sine-wave or Equivalent Square Wave, Duty Cycle=4 Pulses Per Minute Maximum.

4. V_F=3.5V on SMCJ5.0 thru SMCJ90 Devices and V_F=5.0V on SMCJ100 thru SMCJ170 Devices.

Devices for Bipolar Applications

- 1. For Bidrectional Use C or CA Suffix for Types SMCJ5.0 through Types SMCJ170.
- 2. Electrical Characteristics Apply in Both Directions.





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ELECTRICAL CHARACTERISTICS	(TA=25°C	unless otherwise noted)
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			ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)						
		Breakdown			Maximum	Maximum			
Device Type	Device	Voltage	Test	Stand-off	Reverse	Peak Pulse	Maximum		
Modified	Marking	V(BR) (Volts)	Current	voltage	Leakage	Surge	Clamping		
"J" Bend Lead	Code	(Note 1)	at I⊤(mA)	Vwm(Volts)	at Vwm	Current IPPM	Voltage at IPPM		
		(MIN / MAX)			(Note 3) Ib(uA)	(Note 2) (Amps)	Vc(Volts)		
SMCJ5.0	GDD	6.40 / 7.3	10.0	5.0	1000	164.0	9.6		
SMCJ5.0A	GDE	6.40 / 7.0	10.0	5.0	1000	171.0	9.2		
SMCJ6.0	GDF	6.67 / 8.15	10.0	6.0	1000	138.0	11.4		
SMCJ6.0A	GDG	6.67 / 7.37	10.0	6.0	1000	152.0	10.3		
SMCJ6.5	GDH	7.22 / 8.82	10.0	6.5	500	128.0	12.3		
SMCJ6.5A	GDK	7.22 / 7.98	10.0	6.5	500	140.0	11.2		
SMCJ7.0	GDL	7.78 / 9.51	10.0	7.0	200	118.0	13.3		
SMCJ7.0A	GDM	7.78 / 8.60	10.0	7.0	200	131.0	12.0		
SMCJ7.5	GDN	8.33 / 10.3	1.0	7.5	100	110.0	14.3		
SMCJ7.5A	GDP	8.33 / 9.21	1.0	7.5	100	122.0	12.9		
SMCJ8.0	GDQ	8.89 / 10.9	1.0	8.0	50	105.0	15.0		
SMCJ8.0A	GDR	8.89 / 9.83	1.0	8.0	50	115.0	13.6		
SMCJ8.5	GDS	9.44 / 11.5	1.0	8.5	20	99.0	15.9		
SMCJ8.5A	GDT	9.44 / 10.4	1.0	8.5	20	109.0	14.4		
SMCJ9.0	GDU	10.0 / 12.2	1.0	9.0	10	93.0	16.9		
SMCJ9.0A	GDV	10.0 / 12.2	1.0	9.0	10	102.0	15.4		
SMCJ10	GDW	11.1 / 13.6	1.0	10.0	5.0	83.0	18.8		
SMCJ10A	GDX	11.1 / 12.3	1.0	10.0	5.0	92.0	17.0		
SMCJ10A SMCJ11	GDX GDY	12.2 / 14.9	1.0	11.0	5.0	78.0	20.1		
SMCJ11A	GDZ	12.2 / 14.9	1.0	11.0	5.0	86.0	18.2		
			1.0		5.0				
SMCJ12	GED	13.3 / 16.3	1.0	12.0 12.0	5.0	71.0 79.0	22.0 19.9		
SMCJ12A	GEE	13.3 / 14.7							
SMCJ13	GEF	14.4 / 17.6	1.0	13.0	5.0	66.0	23.8		
SMCJ13A	GEG	14.4 / 15.9	1.0	13.0	5.0	73.0	21.5		
SMCJ14	GEH	15.6 / 19.1	1.0	14.0	5.0	61.0	25.8		
SMCJ14A	GEK	15.6 / 17.2	1.0	14.0	5.0	67.0	23.2		
SMCJ15	GEL	16.7 / 20.4	1.0	15.0	5.0	58.0	26.9		
SMCJ15A	GEM	16.7 / 18.5	1.0	15.0	5.0	64.0	24.4		
SMCJ16	GEN	17.8 / 21.8	1.0	16.0	5.0	54.0	28.8		
SMCJ16A	GEP	17.8 / 19.7	1.0	16.0	5.0	60.0	26.0		
SMCJ17	GEQ	18.9 / 23.1	1.0	17.0	5.0	51.0	30.5		
SMCJ17A	GER	18.9 / 20.9	1.0	17.0	5.0	57.0	27.6		
SMCJ18	GES	20.0 / 24.4	1.0	18.0	5.0	48.0	32.2		
SMCJ18A	GET	20.0 / 22.1	1.0	18.0	5.0	53.0	29.2		
SMCJ20	GEU	22.2 / 27.1	1.0	20.0	5.0	43.0	35.8		
SMCJ20A	GEV	22.2 /24.5	1.0	20.0	5.0	48.0	32.4		
SMCJ22	GEW	24.4 / 29.8	1.0	22.0	5.0	39.0	39.4		
SMCJ22A	GEX	24.4 / 26.9	1.0	22.0	5.0	44.0	35.5		
SMCJ24	GEY	26.7 / 32.6	1.0	24.0	5.0	36.0	43.0		
SMCJ24A	GEZ	26.7 / 29.5	1.0	24.0	5.0	40.0	38.9		
SMCJ26	GFD	28.9 / 35.3	1.0	26.0	5.0	33.0	46.6		
SMCJ26A	GFE	28.9 / 31.9	1.0	26.0	5.0	37.0	42.1		
SMCJ28	GFF	31.1 / 38.0	1.0	28.0	5.0	31.0	50.0		
SMCJ28A	GFG	31.1 / 34.4	1.0	28.0	5.0	34.0	45.4		
SMCJ30	GFH	33.3 / 40.7	1.0	30.0	5.0	29.0	53.5		
SMCJ30A	GFK	33.3 / 36.8	1.0	30.0	5.0	32.0	48.4		
SMCJ33	GFL	36.7 / 44.9	1.0	33.0	5.0	26.0	59.0		
SMCJ33A	GFM	36.7 / 40.6	1.0	33.0	5.0	29.0	53.3		
SMCJ36	GFN	40.0 / 48.9	1.0	36.0	5.0	24.0	64.3		
SMCJ36A	GFP	40.0 / 44.2	1.0	36.0	5.0	27.0	58.1		
SMCJ30A SMCJ40	GFQ	44.4 / 54.3	1.0	40.0	5.0	22.0	71.4		
SMCJ40 SMCJ40A	GFR	44.4 / 54.5	1.0	40.0	5.0	22.0	64.5		
SMCJ40A SMCJ43	GFS	44.4 / 49.1 47.8 / 58.4	1.0	40.0	5.0	24.0	64.5 76.7		
SMCJ43 SMCJ43A	GFS	47.8/58.4 47.8/52.8	1.0	43.0 43.0	5.0	20.0	76.7 69.4		
GINICJ4JA	GFI	41.0/ 32.0	1.0	43.0	5.0	22.0	03.4		

Device Type Modified Device Marking Voltage V(sn) (Volts) Test V(sn) (Volts) Stand-off Current at h(mA) Reverse voltage Peak Pulse Surge at Vom (Note 3) lo(uA) Maximum Clamping "J" Bend Lead GEU 50.0 (fs1.1 1.0 45.0 1.0 (Note 3) lo(uA) (Note 2) (Amps) Voltage at lewal VC(Volts) SMCJ45 GFU 50.0 (fs1.1 1.0 45.0 5.0 18.0 85.5 SMCJ48 GFW 53.3 (fs5.1 1.0 48.0 5.0 18.0 85.5 SMCJ48A GFY 56.7 (62.7 1.0 51.0 5.0 19.0 82.4 SMCJ54 GGD 60.0 (73.3 1.0 54.0 5.0 16.0 96.3 SMCJ54 GGE 60.0 (66.3 1.0 54.0 5.0 16.0 93.6 SMCJ554 GGF 64.4 (78.7 1.0 58.0 5.0 16.0 93.6 SMCJ650 GGH 66.7 (71.2 1.0 58.0 5.0 16.0 96.8 SMCJ664	ELECTRICA			(TA=25 C	uniess of	inerwise note	/	
Modified "J" Bend Lead Marking Code V(m) (Vors) (Note 1) (Note 1) Current at Ir(mA) (MIVM(Val); Leakage at V/m(Vol(s) (Note 2) (Amps) Current Irvm Voltage at Irvm (Note 2) (Amps) Current Irvm Voltage at Irvm (V(V)(Volts) SMCJ45 GFU 50.0 / 61.1 1.0 45.0 5.0 19.0 80.3 SMCJ45 GFU 50.0 / 61.1 1.0 45.0 5.0 19.0 80.3 SMCJ45 GFU 50.0 / 65.3 1.0 45.0 5.0 21.0 72.7 SMCJ46 GFV 53.3 / 58.9 1.0 48.0 5.0 19.0 82.4 SMCJ54 GFZ 55.7 / 62.7 1.0 51.0 5.0 19.0 82.4 SMCJ54A GGE 60.0 / 66.3 1.0 54.0 5.0 18.0 87.1 SMCJ54A GGE 64.4 / 78.7 1.0 58.0 5.0 16.0 93.6 SMCJ64 GGL 61.4 / 78.7 1.0 60.0 5.0 16.0 96.8 SMCJ64 GGE 64.4 / 78			Breakdown			Maximum	Maximum	
"J" Bend Lead Code (Nois 1) (MN / MAX) at h(mA) Vmm(Volts) (Nois 3) h(uA) Current imm (Nois 3) h(uA) Current imm (Voltage at imm Voltage at imm (Nois 2) h(uA) SMCJ45 GFU 50.0 / 61.1 1.0 45.0 5.0 12.0 72.7 SMCJ45 GFV 53.3 / 65.1 1.0 48.0 5.0 21.0 72.7 SMCJ48 GFV 53.3 / 65.9 1.0 48.0 5.0 12.0 77.4 SMCJ48 GFX 53.3 / 58.9 1.0 48.0 5.0 17.0 91.1 SMCJ44 GGD 60.0 / 73.3 1.0 54.0 5.0 18.0 87.1 SMCJ54 GGE 60.0 / 76.3 1.0 54.0 5.0 16.0 96.3 SMCJ58 GGF 64.4 / 71.2 1.0 58.0 5.0 16.0 93.6 SMCJ60 GGH 66.7 / 73.7 1.0 60.0 5.0 14.0 107.0 SMCJ64 GGL 71.1 / 78.6 1.0 64.0	Device Type	Device	Voltage	Test	Stand-off	Reverse	Peak Pulse	Maximum
OMIN / MAX ONE of the state of the	Modified	Marking	V(BR) (Volts)	Current	voltage	Leakage	Surge	Clamping
SMCJ45 GFU 50.0 / 61.1 1.0 45.0 5.0 19.0 80.3 SMCJ45A GFV 50.0 / 55.3 1.0 45.0 5.0 21.0 72.7 SMCJ48 GFW 53.3 / 65.1 1.0 48.0 5.0 18.0 85.5 SMCJ48 GFX 53.3 / 65.1 1.0 48.0 5.0 12.0 77.4 SMCJ51A GFZ 56.7 / 62.7 1.0 51.0 5.0 19.0 82.4 SMCJ54 GGD 60.0 / 73.3 1.0 54.0 5.0 16.0 96.3 SMCJ54 GGE 60.0 / 76.3 1.0 54.0 5.0 16.0 93.6 SMCJ58 GGF 64.4 / 78.7 1.0 58.0 5.0 16.0 93.6 SMCJ64 GGL 61.7 / 73.7 1.0 60.0 5.0 14.0 107.0 SMCJ64 GGL 71.1 / 86.9 1.0 64.0 5.0 15.0 103.0 SMCJ70 <td>"J" Bend Lead</td> <td>Code</td> <td>(Note 1)</td> <td>at I⊤(mA)</td> <td>Vwм(Volts)</td> <td>at Vwm</td> <td>Current IPPM</td> <td>Voltage at IPPM</td>	"J" Bend Lead	Code	(Note 1)	at I⊤(mA)	Vwм(Volts)	at Vwm	Current IPPM	Voltage at IPPM
SMCJ48A GFV 50.0 / 55.3 1.0 45.0 5.0 21.0 72.7 SMCJ48 GFW 53.3 / 65.1 1.0 48.0 5.0 18.0 85.5 SMCJ48A GFX 53.3 / 56.9 1.0 48.0 5.0 12.0 77.4 SMCJ51 GFY 56.7 / 62.7 1.0 51.0 5.0 17.0 91.1 SMCJ54 GGD 60.0 / 73.3 1.0 54.0 5.0 16.0 96.3 SMCJ54 GGE 64.4 / 78.7 1.0 58.0 5.0 16.0 93.6 SMCJ56 GF 64.4 / 78.7 1.0 58.0 5.0 16.0 93.6 SMCJ60 GGH 66.7 / 71.2 1.0 60.0 5.0 16.0 96.8 SMCJ64 GGL 71.1 / 78.6 1.0 64.0 5.0 15.0 103.0 SMCJ64 GGL 71.1 / 78.6 1.0 70.0 5.0 11.3 14.0 SMCJ70			(MIN / MAX)			(Note 3) Ib(uA)	(Note 2) (Amps)	Vc(Volts)
SMCJ48 GFW 53.3 / 65.1 1.0 48.0 5.0 18.0 85.5 SMCJ48A GFX 53.3 / 58.9 1.0 48.0 5.0 20.0 77.4 SMCJ51 GFY 56.7 / 62.7 1.0 51.0 5.0 19.0 82.4 SMCJ54 GGD 60.0 / 73.3 1.0 54.0 5.0 16.0 96.3 SMCJ54A GGE 60.0 / 66.3 1.0 54.0 5.0 15.0 103.0 SMCJ58A GGG 64.4 / 71.2 1.0 58.0 5.0 16.0 93.6 SMCJ60 GGH 66.7 / 73.7 1.0 68.0 5.0 16.0 96.8 SMCJ64 GGL 71.1 / 78.6 1.0 64.0 5.0 13.8 14.0 SMCJ64 GGM 77.8 / 95.1 1.0 70.0 5.0 12.6 125.0 SMCJ70 GGN 77.8 / 95.1 1.0 70.0 5.0 11.7 134.0 SMCJ75<	SMCJ45	GFU	50.0 / 61.1	1.0	45.0	5.0	19.0	80.3
SMCJ48A GFX 53.3/58.9 1.0 48.0 5.0 20.0 77.4 SMCJ51 GFY 56.7/62.7 1.0 51.0 5.0 17.0 91.1 SMCJ51A GFZ 56.7/62.7 1.0 51.0 5.0 19.0 82.4 SMCJ54A GGD 60.0/66.3 1.0 54.0 5.0 18.0 87.1 SMCJ58A GGF 64.4/78.7 1.0 58.0 5.0 16.0 93.6 SMCJ58A GGG 64.4/78.7 1.0 58.0 5.0 16.0 93.6 SMCJ60A GGK 66.7/81.5 1.0 60.0 5.0 14.0 107.0 SMCJ64A GGM 71.1/86.9 1.0 64.0 5.0 13.8 114.0 SMCJ64A GGM 77.1/78/95.1 1.0 70.0 5.0 13.9 13.0 SMCJ75 GGQ 83.3/102.1 1.0 75.0 5.0 11.7 134.0 SMCJ75A	SMCJ45A	GFV	50.0 / 55.3	1.0	45.0	5.0	21.0	72.7
SMCJ61 GFY 567/69.3 1.0 51.0 5.0 17.0 91.1 SMCJ51A GFZ 567/62.7 1.0 51.0 5.0 19.0 82.4 SMCJ54 GGD 60.0/73.3 1.0 54.0 5.0 18.0 87.1 SMCJ54A GGE 60.0/78.3 1.0 54.0 5.0 18.0 87.1 SMCJ54A GGE 64.4/71.2 1.0 58.0 5.0 15.0 103.0 SMCJ60 GGH 66.7/73.7 1.0 60.0 5.0 14.0 107.0 SMCJ60 GGK 66.7/73.7 1.0 60.0 5.0 13.8 114.0 SMCJ64 GGL 71.1/86.9 1.0 70.0 5.0 13.8 114.0 SMCJ70A GGP 77.8/95.1 1.0 70.0 5.0 13.9 13.0 SMCJ75A GGR 83.3/92.1 1.0 75.0 5.0 11.7 134.0 SMCJ75A	SMCJ48	GFW	53.3 / 65.1	1.0	48.0	5.0	18.0	85.5
SMCJ51A GFZ 56.7 / 92.7 1.0 51.0 5.0 19.0 82.4 SMCJ54A GGD 60.0 / 73.3 1.0 54.0 5.0 18.0 87.1 SMCJ54A GGE 60.0 / 66.3 1.0 54.0 5.0 18.0 87.1 SMCJ58A GGF 64.4 / 78.7 1.0 58.0 5.0 16.0 93.6 SMCJ60 GGH 66.7 / 81.5 1.0 60.0 5.0 14.0 107.0 SMCJ60A GGK 66.7 / 73.7 1.0 60.0 5.0 14.0 107.0 SMCJ64 GGL 71.1 / 86.9 1.0 64.0 5.0 13.8 114.0 SMCJ70 GGN 77.8 / 95.1 1.0 70.0 5.0 13.9 13.0 SMCJ75A GGQ 83.3 / 102 1.0 75.0 5.0 11.1 134.0 SMCJ75A GGR 83.3 / 92.1 1.0 78.0 5.0 11.3 139.0 SM	SMCJ48A	GFX	53.3 / 58.9	1.0	48.0	5.0	20.0	77.4
SMCJ54 GGD 60.0/73.3 1.0 54.0 5.0 16.0 96.3 SMCJ54A GGE 60.0/66.3 1.0 54.0 5.0 18.0 87.1 SMCJ58 GGF 64.4/78.7 1.0 58.0 5.0 16.0 93.6 SMCJ58 GGG 64.4/78.7 1.0 58.0 5.0 16.0 93.6 SMCJ60 GGH 66.7/73.7 1.0 60.0 5.0 14.0 107.0 SMCJ64 GGL 71.1/78.6 1.0 64.0 5.0 15.0 103.0 SMCJ70A GGP 77.8/86.0 1.0 70.0 5.0 11.7 134.0 SMCJ75A GGR 83.3/92.1 1.0 75.0 5.0 11.3 130.0 SMCJ75A GGR 83.3/92.1 1.0 75.0 5.0 11.3 134.0 SMCJ75A GGR 86.7/106 1.0 78.0 5.0 11.3 139.0 SMCJ78A <t< td=""><td>SMCJ51</td><td>GFY</td><td>56.7 / 69.3</td><td>1.0</td><td>51.0</td><td>5.0</td><td>17.0</td><td>91.1</td></t<>	SMCJ51	GFY	56.7 / 69.3	1.0	51.0	5.0	17.0	91.1
SMCJ54A GGE 60.0 / 66.3 1.0 54.0 5.0 18.0 87.1 SMCJ58A GGF 64.4 /71.2 1.0 58.0 5.0 15.0 103.0 SMCJ58A GGG 64.4 /71.2 1.0 58.0 5.0 16.0 93.6 SMCJ60A GGH 66.7 /81.5 1.0 60.0 5.0 14.0 107.0 SMCJ64A GGL 71.1 /86.9 1.0 64.0 5.0 13.8 114.0 SMCJ64A GGM 71.1 /78.6 1.0 64.0 5.0 13.9 113.0 SMCJ70A GGP 77.8 /95.1 1.0 70.0 5.0 13.9 113.0 SMCJ75A GGQ 83.3 / 102 1.0 75.0 5.0 11.3 139.0 SMCJ75A GGS 86.7 / 106 1.0 78.0 5.0 11.3 139.0 SMCJ78A GGT 86.7 /95.8 1.0 78.0 5.0 11.5 137.0 SMCJ	SMCJ51A		56.7 / 62.7	1.0	51.0	5.0	19.0	82.4
SMCJ58 GGF 64.4 / 78.7 1.0 58.0 5.0 15.0 103.0 SMCJ58A GGG 64.4 / 71.2 1.0 58.0 5.0 16.0 93.6 SMCJ60 GGH 66.7 / 81.5 1.0 60.0 5.0 14.0 107.0 SMCJ60A GGK 66.7 / 73.7 1.0 60.0 5.0 16.0 96.8 SMCJ64 GGL 71.1 / 78.6 1.0 64.0 5.0 13.8 114.0 SMCJ70 GGN 77.8 / 95.1 1.0 70.0 5.0 12.6 125.0 SMCJ75 GGQ 83.3 / 102 1.0 75.0 5.0 11.7 134.0 SMCJ75A GGR 83.3 / 92.1 1.0 75.0 5.0 11.3 139.0 SMCJ78A GGT 86.7 / 95.8 1.0 78.0 5.0 11.3 139.0 SMCJ8A GGV 94.4 / 104 1.0 85.0 5.0 10.4 151.0 SMC	SMCJ54	GGD	60.0 / 73.3	1.0	54.0		16.0	96.3
SMCJ58A GGG 64.4/71.2 1.0 58.0 5.0 16.0 93.6 SMCJ60 GGH 66.7/81.5 1.0 60.0 5.0 14.0 107.0 SMCJ64 GGL 71.1/86.9 1.0 60.0 5.0 16.0 96.8 SMCJ64 GGM 71.1/86.9 1.0 64.0 5.0 13.8 114.0 SMCJ64A GGM 71.1/86.9 1.0 64.0 5.0 15.0 103.0 SMCJ70 GGN 77.8/95.1 1.0 70.0 5.0 13.9 113.0 SMCJ75A GGQ 83.3/102 1.0 75.0 5.0 11.3 139.0 SMCJ75A GGS 86.7/106 1.0 78.0 5.0 11.3 139.0 SMCJ8A GGT 86.7/95.8 1.0 78.0 5.0 11.3 139.0 SMCJ8A GGV 94.4/115 1.0 85.0 5.0 11.5 137.0 SMCJ90A <td< td=""><td>SMCJ54A</td><td>GGE</td><td>60.0 / 66.3</td><td>1.0</td><td>54.0</td><td>5.0</td><td>18.0</td><td>87.1</td></td<>	SMCJ54A	GGE	60.0 / 66.3	1.0	54.0	5.0	18.0	87.1
SMCJ60 GGH 66.7 / 81.5 1.0 60.0 5.0 14.0 107.0 SMCJ60A GGK 66.7 / 73.7 1.0 60.0 5.0 16.0 96.8 SMCJ64 GGL 71.1 / 86.9 1.0 64.0 5.0 13.8 114.0 SMCJ64 GGM 71.1 / 86.9 1.0 64.0 5.0 15.0 103.0 SMCJ64 GGM 77.8 / 95.1 1.0 70.0 5.0 12.6 125.0 SMCJ70 GGP 77.8 / 96.0 1.0 75.0 5.0 11.7 134.0 SMCJ75A GGQ 83.3 / 92.1 1.0 75.0 5.0 11.3 139.0 SMCJ78A GGR 86.7 / 106 1.0 78.0 5.0 11.3 139.0 SMCJ78A GGGU 94.4 / 115 1.0 85.0 5.0 10.4 151.0 SMCJ85 GGU 94.4 / 104 1.0 85.0 5.0 10.7 146.0 SM	SMCJ58	GGF	64.4 / 78.7	1.0	58.0	5.0	15.0	103.0
SMCJ60A GGK 66.7 / 73.7 1.0 60.0 5.0 16.0 96.8 SMCJ64 GGL 71.1 / 86.9 1.0 64.0 5.0 13.8 114.0 SMCJ64A GGM 71.1 / 78.6 1.0 64.0 5.0 13.8 114.0 SMCJ70 GGN 77.8 / 95.1 1.0 70.0 5.0 12.6 125.0 SMCJ70A GGP 77.8 / 95.1 1.0 70.0 5.0 13.9 113.0 SMCJ75A GGQ 83.3 / 102 1.0 75.0 5.0 11.3 139.0 SMCJ75A GGR 83.3 / 92.1 1.0 75.0 5.0 11.3 139.0 SMCJ75A GGR 86.7 / 106 1.0 78.0 5.0 11.3 139.0 SMCJ78A GGGU 94.4 / 115 1.0 85.0 5.0 11.5 137.0 SMCJ85A GGV 94.4 / 115 1.0 85.0 5.0 10.7 146.0 <td< td=""><td>SMCJ58A</td><td>GGG</td><td>64.4 / 71.2</td><td>1.0</td><td>58.0</td><td>5.0</td><td>16.0</td><td>93.6</td></td<>	SMCJ58A	GGG	64.4 / 71.2	1.0	58.0	5.0	16.0	93.6
SMCJ64 GGL 71.1 / 86.9 1.0 64.0 5.0 13.8 114.0 SMCJ64A GGM 71.1 / 78.6 1.0 64.0 5.0 15.0 103.0 SMCJ70 GGN 77.8 / 95.1 1.0 70.0 5.0 12.6 125.0 SMCJ70A GGP 78.8 / 95.1 1.0 70.0 5.0 13.9 113.0 SMCJ75A GGQ 83.3 / 92.1 1.0 75.0 5.0 11.7 134.0 SMCJ78A GGR 83.3 / 92.1 1.0 75.0 5.0 11.3 139.0 SMCJ78A GGR 86.7 / 106 1.0 78.0 5.0 12.5 126.0 SMCJ85A GGV 94.4 / 115 1.0 85.0 5.0 10.4 151.0 SMCJ90 GGW 100 / 122 1.0 90.0 5.0 10.7 146.0 SMCJ90A GGZ 111 / 136 1.0 100.0 5.0 8.9 177.0 SM	SMCJ60	GGH	66.7 / 81.5	1.0	60.0	5.0	14.0	107.0
SMCJ64A GGM 71.1/78.6 1.0 64.0 5.0 15.0 103.0 SMCJ70 GGN 77.8/95.1 1.0 70.0 5.0 12.6 125.0 SMCJ70A GGP 77.8/95.1 1.0 70.0 5.0 13.9 113.0 SMCJ75 GGQ 83.3/102 1.0 75.0 5.0 11.7 134.0 SMCJ78A GGR 83.3/92.1 1.0 75.0 5.0 11.3 139.0 SMCJ78A GGT 86.7/95.8 1.0 78.0 5.0 11.4 151.0 SMCJ85 GGU 94.4/115 1.0 85.0 5.0 10.4 151.0 SMCJ90 GGW 100/122 1.0 90.0 5.0 9.8 160.0 SMCJ90A GGZ 101/11 1.0 90.0 5.0 9.7 162.0 SMCJ100A GGZ 111/136 1.0 100.0 5.0 9.7 162.0 SMCJ100A G	SMCJ60A	GGK	66.7 / 73.7	1.0	60.0	5.0	16.0	96.8
SMCJ70 GGN 77.8 / 95.1 1.0 70.0 5.0 12.6 125.0 SMCJ70A GGP 77.8 / 86.0 1.0 70.0 5.0 13.9 113.0 SMCJ75A GGQ 83.3 / 102 1.0 75.0 5.0 11.7 134.0 SMCJ75A GGR 83.3 / 92.1 1.0 75.0 5.0 11.3 139.0 SMCJ78A GGT 86.7 / 106 1.0 78.0 5.0 11.3 139.0 SMCJ78A GGT 86.7 / 95.8 1.0 78.0 5.0 10.4 151.0 SMCJ85A GGV 94.4 / 115 1.0 85.0 5.0 10.4 151.0 SMCJ90A GGX 100 / 111 1.0 90.0 5.0 10.7 146.0 SMCJ100 GGY 111 / 136 1.0 100.0 5.0 8.8 179.0 SMCJ100 GGZ 111 / 123 1.0 100.0 5.0 8.0 196.0 SMC	SMCJ64	GGL	71.1 / 86.9	1.0	64.0	5.0	13.8	114.0
SMCJ70A GGP 77.8 / 86.0 1.0 70.0 5.0 13.9 113.0 SMCJ75 GGQ 83.3 / 102 1.0 75.0 5.0 11.7 134.0 SMCJ75A GGR 83.3 / 92.1 1.0 75.0 5.0 13.0 121.0 MSJC78 GGS 86.7 / 106 1.0 78.0 5.0 11.3 139.0 SMCJ78A GGT 86.7 / 195.8 1.0 78.0 5.0 11.5 126.0 SMCJ85 GGU 94.4 / 115 1.0 85.0 5.0 10.4 151.0 SMCJ90 GGW 100 / 122 1.0 90.0 5.0 9.8 160.0 SMCJ90A GGX 100 / 111 1.0 90.0 5.0 10.7 146.0 SMCJ100A GGZ 111 / 136 1.0 100.0 5.0 8.8 179.0 SMCJ100A GGZ 111 / 123 1.0 100.0 5.0 8.0 196.0 SMCJ11	SMCJ64A	GGM	71.1 / 78.6	1.0	64.0	5.0	15.0	103.0
SMCJ75 GGQ 83.3 / 102 1.0 75.0 5.0 11.7 134.0 SMCJ75A GGR 83.3 / 92.1 1.0 75.0 5.0 13.0 121.0 MSJC78 GGS 86.7 / 106 1.0 78.0 5.0 11.3 139.0 SMCJ78A GGT 86.7 / 95.8 1.0 78.0 5.0 12.5 126.0 SMCJ85A GGV 94.4 / 104 1.0 85.0 5.0 10.4 151.0 SMCJ90 GGW 100 / 122 1.0 90.0 5.0 11.5 137.0 SMCJ90 GGY 100 / 111 1.0 90.0 5.0 10.7 146.0 SMCJ100 GGY 111 / 123 1.0 100.0 5.0 9.7 162.0 SMCJ100 GHD 122 / 149 1.0 110.0 5.0 8.0 196.0 SMCJ110 GHF 133 / 163 1.0 120.0 5.0 8.1 193.0 SMCJ110A </td <td>SMCJ70</td> <td>GGN</td> <td>77.8 / 95.1</td> <td>1.0</td> <td>70.0</td> <td>5.0</td> <td>12.6</td> <td>125.0</td>	SMCJ70	GGN	77.8 / 95.1	1.0	70.0	5.0	12.6	125.0
SMCJ75A GGR 83.3 / 92.1 1.0 75.0 5.0 13.0 121.0 MSJC78 GGS 86.7 / 106 1.0 78.0 5.0 11.3 139.0 SMCJ78A GGT 86.7 / 95.8 1.0 78.0 5.0 12.5 126.0 SMCJ85 GGU 94.4 / 115 1.0 85.0 5.0 10.4 151.0 SMCJ85A GGV 94.4 / 115 1.0 85.0 5.0 11.5 137.0 SMCJ90 GGW 100 / 122 1.0 90.0 5.0 10.7 146.0 SMCJ100 GGY 111 / 136 1.0 100.0 5.0 9.7 162.0 SMCJ100A GGZ 111 / 123 1.0 100.0 5.0 8.0 196.0 SMCJ10A GHE 122 / 149 1.0 110.0 5.0 8.1 193.0 SMCJ110A GHE 132 / 147 1.0 120.0 5.0 7.3 214.0 SMCJ120	SMCJ70A	GGP	77.8 / 86.0	1.0	70.0	5.0	13.9	113.0
MSJC78 GGS 86.7/106 1.0 78.0 5.0 11.3 139.0 SMCJ78A GGT 86.7/95.8 1.0 78.0 5.0 12.5 126.0 SMCJ85 GGU 94.4/115 1.0 85.0 5.0 10.4 151.0 SMCJ85A GGV 94.4/104 1.0 85.0 5.0 11.5 137.0 SMCJ90 GGW 100/122 1.0 90.0 5.0 10.7 146.0 SMCJ100 GGY 111/136 1.0 100.0 5.0 9.7 162.0 SMCJ100A GGZ 111/123 1.0 100.0 5.0 8.0 196.0 SMCJ110A GHD 122/149 1.0 110.0 5.0 8.0 196.0 SMCJ120A GHF 133/163 1.0 110.0 5.0 8.1 193.0 SMCJ120A GHF 133/147 1.0 120.0 5.0 8.1 193.0 SMCJ130A G	SMCJ75	GGQ	83.3 / 102	1.0	75.0	5.0	11.7	134.0
SMCJ78A GGT 86.7 / 95.8 1.0 78.0 5.0 12.5 126.0 SMCJ85 GGU 94.4 / 115 1.0 85.0 5.0 10.4 151.0 SMCJ85 GGV 94.4 / 104 1.0 85.0 5.0 11.5 137.0 SMCJ90 GGW 100 / 122 1.0 90.0 5.0 9.8 160.0 SMCJ90A GGX 100 / 111 1.0 90.0 5.0 9.8 160.0 SMCJ100 GGZ 111 / 136 1.0 100.0 5.0 8.8 179.0 SMCJ100A GGZ 111 / 123 1.0 100.0 5.0 8.8 196.0 SMCJ100A GGZ 111 / 123 1.0 110.0 5.0 8.0 196.0 SMCJ110A GHE 122 / 149 1.0 110.0 5.0 8.1 193.0 SMCJ120A GHF 133 / 163 1.0 120.0 5.0 8.1 193.0 SMCJ120A </td <td>SMCJ75A</td> <td>GGR</td> <td>83.3 / 92.1</td> <td>1.0</td> <td>75.0</td> <td>5.0</td> <td>13.0</td> <td>121.0</td>	SMCJ75A	GGR	83.3 / 92.1	1.0	75.0	5.0	13.0	121.0
SMCJ85 GGU 94.4 / 115 1.0 85.0 5.0 10.4 151.0 SMCJ85A GGV 94.4 / 104 1.0 85.0 5.0 11.5 137.0 SMCJ85A GGV 94.4 / 104 1.0 85.0 5.0 11.5 137.0 SMCJ90A GGW 100 / 122 1.0 90.0 5.0 9.8 160.0 SMCJ90A GGX 100 / 111 1.0 90.0 5.0 10.7 146.0 SMCJ100 GGZ 111 / 123 1.0 100.0 5.0 8.8 179.0 SMCJ100A GGZ 111 / 123 1.0 100.0 5.0 8.8 179.0 SMCJ10A GHD 122 / 149 1.0 110.0 5.0 8.0 196.0 SMCJ110A GHE 132 / 135 1.0 110.0 5.0 8.1 193.0 SMCJ120A GHF 133 / 147 1.0 120.0 5.0 8.1 193.0 SMCJ120A<	MSJC78	GGS	86.7 / 106	1.0	78.0	5.0	11.3	139.0
SMCJ85A GGV 94.4 / 104 1.0 85.0 5.0 11.5 137.0 SMCJ90 GGW 100 / 122 1.0 90.0 5.0 9.8 160.0 SMCJ90A GGX 100 / 111 1.0 90.0 5.0 9.8 160.0 SMCJ90A GGY 111 / 136 1.0 90.0 5.0 10.7 146.0 SMCJ100A GGY 111 / 136 1.0 100.0 5.0 8.8 179.0 SMCJ100A GGZ 111 / 123 1.0 100.0 5.0 8.7 162.0 SMCJ110 GHD 122 / 149 1.0 110.0 5.0 8.0 196.0 SMCJ120A GHE 122 / 135 1.0 110.0 5.0 8.1 193.0 SMCJ120A GHF 133 / 147 1.0 120.0 5.0 8.1 193.0 SMCJ130A GHK 144 / 176 1.0 130.0 5.0 6.8 231.0 SMCJ130A </td <td>SMCJ78A</td> <td>GGT</td> <td>86.7 / 95.8</td> <td>1.0</td> <td>78.0</td> <td>5.0</td> <td>12.5</td> <td>126.0</td>	SMCJ78A	GGT	86.7 / 95.8	1.0	78.0	5.0	12.5	126.0
SMCJ90 GGW 100/122 1.0 90.0 5.0 9.8 160.0 SMCJ90A GGX 100/111 1.0 90.0 5.0 10.7 146.0 SMCJ90A GGX 111/136 1.0 100.0 5.0 8.8 179.0 SMCJ100A GGZ 111/136 1.0 100.0 5.0 8.8 179.0 SMCJ100A GGZ 111/123 1.0 100.0 5.0 8.8 179.0 SMCJ100A GHD 122/149 1.0 110.0 5.0 8.0 196.0 SMCJ110A GHE 122/135 1.0 110.0 5.0 8.9 177.0 SMCJ120 GHF 133/163 1.0 120.0 5.0 8.1 193.0 SMCJ120A GHG 133/147 1.0 120.0 5.0 8.1 193.0 SMCJ130A GHK 144/176 1.0 130.0 5.0 7.5 209.0 SMCJ150 GHL<	SMCJ85	GGU	94.4 / 115	1.0	85.0	5.0	10.4	151.0
SMCJ90A GGX 100/111 1.0 90.0 5.0 10.7 146.0 SMCJ100 GGY 111/136 1.0 100.0 5.0 8.8 179.0 SMCJ100A GGZ 111/123 1.0 100.0 5.0 8.8 179.0 SMCJ100A GGZ 111/123 1.0 100.0 5.0 9.7 162.0 SMCJ110 GHD 122/149 1.0 110.0 5.0 8.0 196.0 SMCJ120 GHF 133/163 1.0 110.0 5.0 8.9 177.0 SMCJ120 GHF 133/163 1.0 120.0 5.0 8.1 193.0 SMCJ130 GHH 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/176 1.0 130.0 5.0 7.5 209.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 5.8 268.0 SMCJ150 GHL<	SMCJ85A	GGV	94.4 / 104	1.0	85.0	5.0	11.5	137.0
SMCJ100 GGY 111/136 1.0 100.0 5.0 8.8 179.0 SMCJ100A GGZ 111/123 1.0 100.0 5.0 9.7 162.0 SMCJ100 GHD 122/149 1.0 110.0 5.0 8.0 196.0 SMCJ110A GHE 122/135 1.0 110.0 5.0 8.9 177.0 SMCJ120A GHF 133/163 1.0 120.0 5.0 8.1 193.0 SMCJ130A GHH 144/176 1.0 120.0 5.0 8.1 193.0 SMCJ130A GHK 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/176 1.0 130.0 5.0 7.5 209.0 SMCJ150 GHL 167/204 1.0 150.0 5.0 5.8 268.0 SMCJ160A GHN 178/218 1.0 150.0 5.0 6.4 243.0 SMCJ160A	SMCJ90	GGW	100 / 122	1.0	90.0	5.0	9.8	160.0
SMCJ100A GGZ 111/123 1.0 100.0 5.0 9.7 162.0 SMCJ110 GHD 122/149 1.0 110.0 5.0 8.0 196.0 SMCJ110A GHE 122/149 1.0 110.0 5.0 8.0 196.0 SMCJ110A GHE 122/135 1.0 110.0 5.0 8.9 177.0 SMCJ120 GHF 133/163 1.0 120.0 5.0 8.1 193.0 SMCJ120A GHG 133/147 1.0 120.0 5.0 6.8 231.0 SMCJ130A GHK 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 7.5 209.0 SMCJ150A GHL 167/204 1.0 150.0 5.0 5.8 268.0 SMCJ160A GHN 178/218 1.0 150.0 5.0 6.4 243.0 SMCJ160A <td< td=""><td>SMCJ90A</td><td>GGX</td><td>100 / 111</td><td>1.0</td><td>90.0</td><td>5.0</td><td>10.7</td><td>146.0</td></td<>	SMCJ90A	GGX	100 / 111	1.0	90.0	5.0	10.7	146.0
SMCJ110 GHD 122/149 1.0 110.0 5.0 8.0 196.0 SMCJ110A GHE 122/135 1.0 110.0 5.0 8.9 177.0 SMCJ110A GHE 122/135 1.0 110.0 5.0 8.9 177.0 SMCJ120A GHF 133/143 1.0 120.0 5.0 7.3 214.0 SMCJ120A GHG 133/147 1.0 120.0 5.0 8.1 193.0 SMCJ130A GHK 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ150A GHL 167/204 1.0 150.0 5.0 5.8 268.0 SMCJ150A GHN 177/204 1.0 150.0 5.0 6.4 243.0 SMCJ160A GHN 178/218 1.0 160.0 5.0 6.4 287.0 SMCJ160A <t< td=""><td>SMCJ100</td><td>GGY</td><td>111 / 136</td><td>1.0</td><td>100.0</td><td>5.0</td><td>8.8</td><td>179.0</td></t<>	SMCJ100	GGY	111 / 136	1.0	100.0	5.0	8.8	179.0
SMCJ110A GHE 122/135 1.0 110.0 5.0 8.9 177.0 SMCJ120 GHF 133/163 1.0 120.0 5.0 7.3 214.0 SMCJ120A GHG 133/147 1.0 120.0 5.0 7.3 214.0 SMCJ120A GHG 133/147 1.0 120.0 5.0 8.1 193.0 SMCJ130 GHH 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 7.5 209.0 SMCJ150A GHL 167/204 1.0 150.0 5.0 5.8 268.0 SMCJ150A GHM 167/185 1.0 150.0 5.0 5.4 243.0 SMCJ160A GHP 178/218 1.0 160.0 5.0 5.4 287.0 SMCJ160A GHP 178/197 1.0 160.0 5.0 6.0 259.0 SMCJ160A <td< td=""><td>SMCJ100A</td><td>GGZ</td><td>111 / 123</td><td>1.0</td><td>100.0</td><td>5.0</td><td>9.7</td><td>162.0</td></td<>	SMCJ100A	GGZ	111 / 123	1.0	100.0	5.0	9.7	162.0
SMCJ120 GHF 133/163 1.0 120.0 5.0 7.3 214.0 SMCJ120A GHG 133/147 1.0 120.0 5.0 8.1 193.0 SMCJ130 GHH 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 7.5 209.0 SMCJ150A GHL 167/204 1.0 150.0 5.0 5.8 268.0 SMCJ150A GHM 167/185 1.0 150.0 5.0 6.4 243.0 SMCJ160 GHN 178/218 1.0 160.0 5.0 5.4 287.0 SMCJ160A GHP 178/197 1.0 160.0 5.0 6.0 2259.0 SMCJ160A GHQ 189/231 1.0 170.0 5.0 5.1 304.0	SMCJ110	GHD	122 / 149	1.0	110.0	5.0	8.0	196.0
SMCJ120A GHG 133/147 1.0 120.0 5.0 8.1 193.0 SMCJ130 GHH 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 7.5 209.0 SMCJ150A GHL 167/204 1.0 150.0 5.0 5.8 268.0 SMCJ150A GHM 167/185 1.0 150.0 5.0 6.4 243.0 SMCJ160 GHN 178/218 1.0 160.0 5.0 6.4 287.0 SMCJ160A GHP 178/197 1.0 160.0 5.0 6.0 259.0 SMCJ160A GHQ 189/231 1.0 170.0 5.0 5.1 304.0	SMCJ110A	GHE	122 / 135	1.0	110.0	5.0	8.9	177.0
SMCJ130 GHH 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 7.5 209.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 7.5 209.0 SMCJ150 GHL 167/204 1.0 150.0 5.0 5.8 268.0 SMCJ150A GHM 167/185 1.0 150.0 5.0 6.4 243.0 SMCJ160 GHN 178/218 1.0 160.0 5.0 6.4 287.0 SMCJ160A GHP 178/197 1.0 160.0 5.0 6.0 259.0 SMCJ170 GHQ 189/231 1.0 170.0 5.0 5.1 304.0	SMCJ120	GHF	133 / 163	1.0	120.0	5.0	7.3	214.0
SMCJ130 GHH 144/176 1.0 130.0 5.0 6.8 231.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 7.5 209.0 SMCJ130A GHK 144/159 1.0 130.0 5.0 7.5 209.0 SMCJ150A GHL 167/204 1.0 150.0 5.0 5.8 268.0 SMCJ150A GHM 167/185 1.0 150.0 5.0 6.4 243.0 SMCJ160 GHN 178/218 1.0 160.0 5.0 6.4 287.0 SMCJ160A GHP 178/197 1.0 160.0 5.0 6.0 259.0 SMCJ170 GHQ 189/231 1.0 170.0 5.0 5.1 304.0	SMCJ120A	GHG	133 / 147	1.0	120.0	5.0	8.1	193.0
SMCJ150 GHL 167 / 204 1.0 150.0 5.0 5.8 268.0 SMCJ150A GHM 167 / 185 1.0 150.0 5.0 6.4 243.0 SMCJ160 GHN 178 / 218 1.0 160.0 5.0 5.4 287.0 SMCJ160A GHP 178 / 197 1.0 160.0 5.0 6.0 259.0 SMCJ170 GHQ 189 / 231 1.0 170.0 5.0 5.1 304.0	SMCJ130	GHH		1.0	130.0	5.0	6.8	231.0
SMCJ150A GHM 167 / 185 1.0 150.0 5.0 6.4 243.0 SMCJ160 GHN 178 / 218 1.0 160.0 5.0 5.4 287.0 SMCJ160A GHP 178 / 197 1.0 160.0 5.0 6.0 259.0 SMCJ170 GHQ 189 / 231 1.0 170.0 5.0 5.1 304.0	SMCJ130A	GHK	144 / 159	1.0	130.0	5.0	7.5	209.0
SMCJ150A GHM 167 / 185 1.0 150.0 5.0 6.4 243.0 SMCJ160 GHN 178 / 218 1.0 160.0 5.0 5.4 287.0 SMCJ160A GHP 178 / 197 1.0 160.0 5.0 6.0 259.0 SMCJ170 GHQ 189 / 231 1.0 170.0 5.0 5.1 304.0	SMCJ150	GHL	167 / 204	1.0	150.0	5.0	5.8	268.0
SMCJ160 GHN 178 / 218 1.0 160.0 5.0 5.4 287.0 SMCJ160A GHP 178 / 197 1.0 160.0 5.0 6.0 259.0 SMCJ170 GHQ 189 / 231 1.0 170.0 5.0 5.1 304.0	SMCJ150A						6.4	243.0
SMCJ160A GHP 178 / 197 1.0 160.0 5.0 6.0 259.0 SMCJ170 GHQ 189 / 231 1.0 170.0 5.0 5.1 304.0								
SMCJ170 GHQ 189/231 1.0 170.0 5.0 5.1 304.0								
	SMCJ170	GHQ	189 / 231	1.0	170.0	5.0	5.1	304.0

ELECTRICAL CHARACTERISTICS (TA=25^oC unless otherwise noted)

Notes:

1. V(BR) measured after IT applied for 300us, IT=Square wave pulse or equivalent.

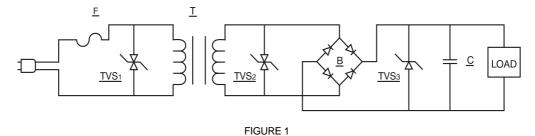
2. Surge current waveform per Fig. 3 and derate per Figure 2.

3. For bidirectional types having Vwm of 10 Volts and less, the I_D limit is doubled

4. all terms and symbols are consistent with ANSI/IEEE C62.35

TVS APPLICATION NOTES:

Transient Voltage Suppressors may be used at various points in a circuit to provide various degrees of protection. The following is a typical linear power supply with transient voltage suppressor units placed at different points. All provide protection of the load.



Transient Voltage Suppressors 1 provides maximum protection. However, the system will probably require replacement of the line fuse(F) since it provides a dominant portion of the series impedance when a surge is encountered.

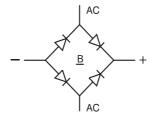
However, we do not recommend to use the TVS diode here, unless we can know the electric circuit impedance and the magnitude of surge rushed into the circuit. Otherwise the TVS diode is easy to be destroyed by voltage surge.

Transient Voltage Suppressor 2 provides execllent protection of circuitry excluding the transformer(T). However, since the transformer is a large part of the series impedance, the chance of the line fuse opening during the surge condition is reduced.

Transient Voltage Suppressor 3 provides the load with complete protection. It uses a unidirectional Transient Voltage Suppressor, which is a cost advantage. The series impedance now includes the line fuse, transformer, and bridge rectifier(B) so failure of the line fuse is further reduced. If only Transient Voltage Suppressor 3 is in use, then the bridge rectifier is unprotected and would require a higher voltage and current rating to prevent failure by transients.

Any combination of these three, or any one of these applications, will prevent damage to the load. This would require varying trade-offs in power supply protection versus maintenance(changing the time fuse).

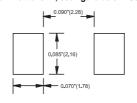
An additional method is to utilize the Transient Voltage Suppressor units as a controlled avalanche bridge. This reduces the parts count and incorporates the protection within the bridge rectifier.





RECOMMENDED PAD SIZES

The pad dimensions should be 0.010"(0.25mm) longer than the contact size, in the lead axis. This allows a solder fillet to form, see figure below. Contact factory for soldering methods.



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