Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

5.0SMLJ11A THRU 5.0SMLJ170A

Transient Voltage Suppressor 11 to 170 Volts 5000 Watt

Features

- For surface mount application in order to optimize board space
- Low inductance
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Excellent clamping capability
- Repetition Rate(duty cycle): 0.01%
- Fast response time: typical less than 1ps from 0V to BV min
- Typical I_D less than 1uA above 10V
- High temperature soldering: 250°C/10 seconds at terminals
- Plastic package has Underwrites Laboratory Flammability Classification 94V-O
- UL Recognized File # E222849

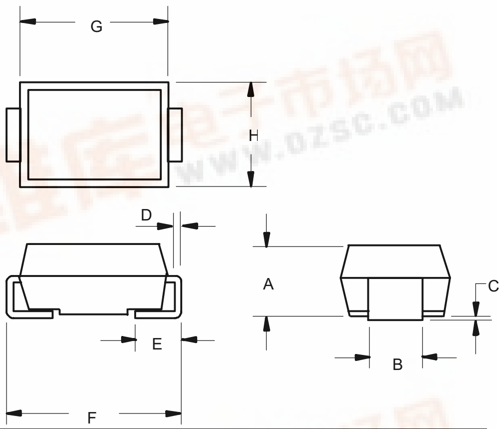
Mechanical Data

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end(cathode) except Bi-directional types.
- Standard packaging: 16mm tape per (EIA 481).
- Weight: 0.007 ounce, 0.21 gram

Maximum Ratings @ 25°C Unless Otherwise Specified

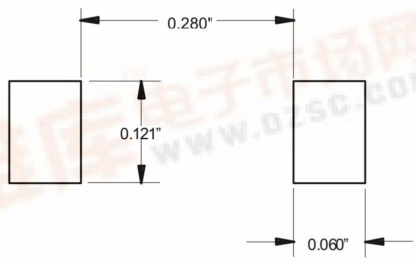
Peak Pulse Current on 10/1000us waveform(Note1, Fig3)	I_{PPM}	See Table 1	Amps
Peak Pulse Power Disspation on 10/1000us waveform(Note1,2,Fig1)	P_{PPM}	Minimum 5000	Watts
Peak forward surge current (JEDEC Method) (Note 2,3)	I_{FSM}	300.0	Amps
Operation And Storage Temperature Range	T_J, T_{STG}	-55°C to +150°C	

DO-214AB (SMCJ) (LEAD FRAME)



DIM	INCHES MIN	INCHES MAX	MM MIN	MM MAX	NOTE
A	.079	.103	2.00	2.62	
B	.115	.121	2.92	3.07	
C	.002	.008	0.051	0.203	
D	.006	.012	0.152	0.305	
E	.030	.050	0.76	1.27	
F	.305	.320	7.75	8.13	
G	.260	.280	6.60	7.11	
H	.220	.245	5.59	6.22	

SUGGESTED SOLDER PAD LAYOUT



NOTES:
1. Non-repetitive current pulse per Fig.3 and derated above TA=25°C per Fig.2.
2. Mounted on 8.0mm^2 copper pads to each terminal.
3. 8.3ms, single half sine-wave or equivalent square wave, duty cycle=4 pulses per. Minutes maximum.

5.0SMLJ11A~ 5.0SMLJ170A

Micro Commercial Components

PART NUMBER	REVERSE STAND- OFF VOLTAGE V_{RWM}(V)	BREAKDOWN VOLTAGE V_{BR}(V) MIN.@IT	BREAKDOWN VOLTAGE V_{BR}(V) MAX.@IT	TEST CURRENT I_T (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc(V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @V_{RWM} I_D(μA)	DEVICE MARKING CODE
5.0SMLJ 11A	11	12.2	13.5	10	18.2	275	800	5PEN
5.0SMLJ 12A	12	13.3	14.7	10	19.9	252	800	5PEP
5.0SMLJ 13A	13	14.4	15.9	10	21.5	233	500	5PEQ
5.0SMLJ 14A	14	15.6	17.2	10	23.2	216	200	5PER
5.0SMLJ 15A	15	16.7	18.5	1	24.4	205	100	5PES
5.0SMLJ 16A	16	17.8	19.7	1	26	193	50	5PET
5.0SMLJ 17A	17	18.9	20.9	1	27.6	181	20	5PEU
5.0SMLJ 18A	18	20	22.1	1	29.2	172	10	5PEV
5.0SMLJ 20A	20	22.2	24.5	1	32.4	155	5	5PEW
5.0SMLJ 22A	22	24.4	26.9	1	35.5	141	5	5PEX
5.0SMLJ 24A	24	26.7	29.5	1	38.9	129	5	5PEZ
5.0SMLJ 26A	26	28.9	31.9	1	42.1	119	5	5PFE
5.0SMLJ 28A	28	31.1	34.4	1	45.4	110	5	5PFG
5.0SMLJ 30A	30	33.3	36.8	1	48.4	103	5	5PFK
5.0SMLJ 33A	33	36.7	40.6	1	53.3	93.9	5	5PFM
5.0SMLJ 36A	36	40	44.2	1	58.1	86.1	5	5PFP
5.0SMLJ 40A	40	44.4	49.1	1	64.5	77.6	5	5PFR
5.0SMLJ 43A	43	47.8	52.8	1	69.4	72.1	5	5PFT
5.0SMLJ 45A	45	50	55.3	1	72.7	68.8	5	5PFV
5.0SMLJ 48A	48	53.3	58.9	1	77.4	64.7	5	5PFX
5.0SMLJ 51A	51	56.7	62.7	1	82.4	60.7	5	5PFZ
5.0SMLJ 54A	54	60	66.3	1	87.1	57.5	5	5RGE
5.0SMLJ 58A	58	64.4	71.2	1	93.6	53.5	5	5PGG
5.0SMLJ 60A	60	66.7	73.7	1	96.8	51.7	5	5PGK
5.0SMLJ 64A	64	71.1	78.6	1	103	48.6	5	5PGM
5.0SMLJ 70A	70	77.8	86	1	113	44.3	5	5PGP
5.0SMLJ 75A	75	83.3	92.1	1	121	41.4	5	5PGR
5.0SMLJ 78A	78	86.7	95.8	1	126	39.7	5	5PGT
5.0SMLJ 85A	85	94.4	104	1	137	36.5	5	5PGV
5.0SMLJ 90A	90	100	111	1	146	34.3	5	5PGX
5.0SMLJ 100A	100	111	123	1	162	30.9	5	5PGZ
5.0SMLJ 110A	110	122	135	1	177	28.3	5	5PHE
5.0SMLJ 120A	120	133	147	1	193	26	5	5PHG
5.0SMLJ 130A	130	144	159	1	209	24	5	5PHK
5.0SMLJ 150A	150	167	185	1	243	20.6	5	5PHM
5.0SMLJ 160A	160	178	197	1	259	19.3	5	5PHP
5.0SMLJ 170A	170	189	209	1	275	18.2	5	5PHR

5.0SMLJ11CA~5.0SMLJ45CA

PART NUMBER	REVERSE STAND- OFF VOLTAGE V_{RWM}(V)	BREAKDOWN VOLTAGE V_{BR}(V) MIN.@IT	BREAKDOWN VOLTAGE V_{BR}(V) MAX.@IT	TEST CURRENT I_T (mA)	MAXIMUM CLAMPING VOLTAGE @Ipp Vc(V)	PEAK PULSE CURRENT Ipp (A)	REVERSE LEAKAGE @V_{RWM} I_D(μA)	DEVICE MARKING CODE
5.0SMLJ 11CA	11	12.2	13.5	10	18.2	275	800	5BEN
5.0SMLJ 12CA	12	13.3	14.7	10	19.9	252	800	5BEP
5.0SMLJ 13CA	13	14.4	15.9	10	21.5	233	500	5BEQ
5.0SMLJ 14CA	14	15.6	17.2	10	23.2	216	200	5BER
5.0SMLJ 15CA	15	16.7	18.5	1	24.4	205	100	5BES
5.0SMLJ 16CA	16	17.8	19.7	1	26	193	50	5BET
5.0SMLJ 17CA	17	18.9	20.9	1	27.6	181	20	5BEU
5.0SMLJ 18CA	18	20	22.1	1	29.2	172	10	5BEV
5.0SMLJ 20CA	20	22.2	24.5	1	32.4	155	5	5BEW
5.0SMLJ 22CA	22	24.4	26.9	1	35.5	141	5	5BEX
5.0SMLJ 24CA	24	26.7	29.5	1	38.9	129	5	5BEZ
5.0SMLJ 26CA	26	28.9	31.9	1	42.1	119	5	5BFE
5.0SMLJ 28CA	28	31.1	34.4	1	45.4	110	5	5BFG
5.0SMLJ 30CA	30	33.3	36.8	1	48.4	103	5	5BFK
5.0SMLJ 33CA	33	36.7	40.6	1	53.3	93.9	5	5BFM
5.0SMLJ 36CA	36	40	44.2	1	58.1	86.1	5	5BFP
5.0SMLJ 40CA	40	44.4	49.1	1	64.5	77.6	5	5BFR
5.0SMLJ 43CA	43	47.8	52.8	1	69.4	72.1	5	5BFT
5.0SMLJ 45CA	45	50	55.3	1	72.7	68.8	5	5BFV

For Bidirectional type having Vrwm of 20 volts and less,the Ir limit is double.

Micro Commercial Components

IMPORTANT NOTICE
Micro Commercial Components Corp . reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . *Micro Commercial Components Corp* . does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold *Micro Commercial Components Corp* . and all the companies whose products are represented on our website, harmless against all damages.
APPLICATIONS DISCLAIMER
Products offer by *Micro Commercial Components Corp* . are not intended for use in Medical, Aerospace or Military Applications.