Micro Commercial Components

	E480232

Features

- Low Inductance
- Built in Strain Relief
- For Surface Mount Application in Order to Optimize Board Space
- High Temperature Soldering: 260°C/10 Seconds at Terminals
- Typical I_D:less than 1uA above 10V
- Low Profile Package
- Repetition Rate(duty cycle): 0.01%
- Glass Passivated Junction
- Excellent Clamping Capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)

Mechanical Data

- 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
- Terminals: Solderable Per MIL-STD-750, Method 2026

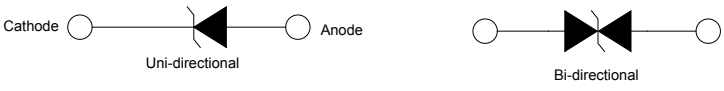
Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 23°C/W Junction to Ambient

Peak Pulse Power Surge Current on 10/1000μs Waveform	I_{PPM}	See the Table	Note 2
Peak Pulse Power Dissipation on 10/1000μs Waveform	P_{PPM}	5000W(Min)	Note 2,3
Power Dissipationon infinite heat sink	P_D	6.5W	T_L = 75°C.
Fast response time	typically less than 1.0ps from 0 Volts to BV Min		

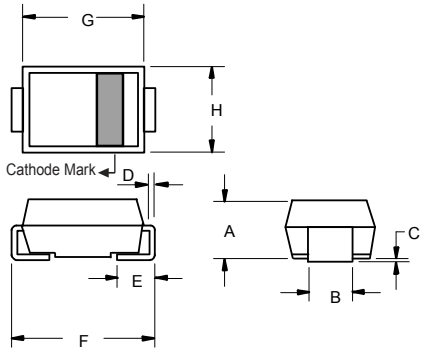
Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
2. Non-repetitive current pulse and derated above T_A=25 °C
3. Mounted on 8.0mm^2 copper pads to each terminal.

Pin Configuration:



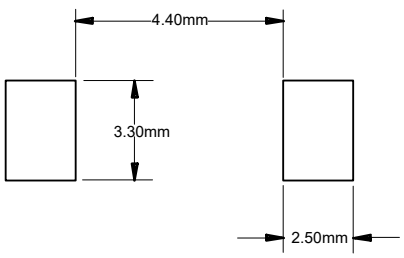
5000 Watt TVS
11 to 400 Volts

SMC (DO-214AB)
(LEAD FRAME)



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	0.108	0.128	2.75	3.25	
C	0.002	0.008	0.051	0.203	
D	0.006	0.012	0.152	0.305	
E	0.030	0.060	0.76	1.52	
F	0.305	0.320	7.75	8.13	
G	0.260	0.280	6.60	7.11	
H	0.220	0.245	5.59	6.22	

Suggested Solder Pad Layout



MCC Part Number	Reverse Stand-Off Voltage	Breakdown Voltage V_{BR}(V)		Test Current	Max. Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage Current@V_{RWM}	Marking Code
Uni-directional	V_{RWM}(V)	Min	Max	I_T(mA)	V_C(V)	I_{PP}(A)	I_D(μA)	
5.0SMLJ11A	11	12.2	13.5	10	18.2	275	800	5PEN
5.0SMLJ12A	12	13.3	14.7	10	19.9	252	800	5PEP
5.0SMLJ13A	13	14.4	15.9	10	21.5	233	500	5PEQ
5.0SMLJ14A	14	15.6	17.2	10	23.2	216	200	5PER
5.0SMLJ15A	15	16.7	18.5	1	24.4	205	100	5PES
5.0SMLJ16A	16	17.8	19.7	1	26	193	50	5PET
5.0SMLJ17A	17	18.9	20.9	1	27.6	181	20	5PEU
5.0SMLJ18A	18	20	22.1	1	29.2	172	10	5PEV
5.0SMLJ20A	20	22.2	24.5	1	32.4	155	5	5PEW
5.0SMLJ22A	22	24.4	26.9	1	35.5	141	5	5PEX
5.0SMLJ24A	24	26.7	29.5	1	38.9	129	5	5PEZ
5.0SMLJ26A	26	28.9	31.9	1	42.1	119	5	5PFE
5.0SMLJ28A	28	31.1	34.4	1	45.4	110	5	5PFG
5.0SMLJ30A	30	33.3	36.8	1	48.4	103	5	5PFK
5.0SMLJ33A	33	36.7	40.6	1	53.3	93.9	5	5PFM
5.0SMLJ36A	36	40	44.2	1	58.1	86.1	5	5PFP
5.0SMLJ40A	40	44.4	49.1	1	64.5	77.6	5	5PFR
5.0SMLJ43A	43	47.8	52.8	1	69.4	72.1	5	5PFT
5.0SMLJ45A	45	50	55.3	1	72.7	68.8	5	5PFV
5.0SMLJ48A	48	53.3	58.9	1	77.4	64.7	5	5PFX
5.0SMLJ51A	51	56.7	62.7	1	82.4	60.7	5	5PFZ
5.0SMLJ54A	54	60	66.3	1	87.1	57.5	5	5RGE
5.0SMLJ58A	58	64.4	71.2	1	93.6	53.5	5	5PGG
5.0SMLJ60A	60	66.7	73.7	1	96.8	51.7	5	5PGK
5.0SMLJ64A	64	71.1	78.6	1	103	48.6	5	5PGM
5.0SMLJ70A	70	77.8	86	1	113	44.3	5	5PGP
5.0SMLJ75A	75	83.3	92.1	1	121	41.4	5	5PGR
5.0SMLJ78A	78	86.7	95.8	1	126	39.7	5	5PGT
5.0SMLJ85A	85	94.4	104	1	137	36.5	5	5PGV
5.0SMLJ90A	90	100	111	1	146	34.3	5	5PGX
5.0SMLJ100A	100	111	123	1	162	30.9	5	5PGZ
5.0SMLJ110A	110	122	135	1	177	28.3	5	5PHE
5.0SMLJ120A	120	133	147	1	193	26	5	5PHG
5.0SMLJ130A	130	144	159	1	209	24	5	5PHK
5.0SMLJ150A	150	167	185	1	243	20.6	5	5PHM
5.0SMLJ160A	160	178	197	1	259	19.3	5	5PHP
5.0SMLJ170A	170	189	209	1	275	18.2	5	5PHR
5.0SMLJ180A	180	200	220	1	292	17.1	5	5PHT
5.0SMLJ190A	190	211	258	1	308	16.2	5	5PHV
5.0SMLJ200A	200	224	247	1	324	15.4	5	5PHW
5.0SMLJ220A	220	246	272	1	356	14.0	5	5PHX
5.0SMLJ250A	250	279	309	1	405	12.3	5	5PHZ
5.0SMLJ300A	300	335	371	1	486	10.3	5	5PJE
5.0SMLJ350A	350	391	432	1	567	8.8	5	5PJG
5.0SMLJ400A	400	447	494	1	648	7.7	5	5PJK

MCC Part Number	Reverse Stand-Off Voltage	Breakdown Voltage V_{BR}(V)		Test Current	Max. Clamping Voltage @I_{PP}	Peak Pulse Current	Reverse Leakage Current@V_{RWM}	Marking Code
Bi-directional	V_{RWM}(V)	Min	Max	I_T(mA)	V_C(V)	I_{PP}(A)	I_D(μA)	
5.0SMLJ11CA	11	12.2	13.5	10	18.2	275	800	5BEN
5.0SMLJ12CA	12	13.3	14.7	10	19.9	252	800	5BEP
5.0SMLJ13CA	13	14.4	15.9	10	21.5	233	500	5BEQ
5.0SMLJ14CA	14	15.6	17.2	10	23.2	216	200	5BER
5.0SMLJ15CA	15	16.7	18.5	1	24.4	205	100	5BES
5.0SMLJ16CA	16	17.8	19.7	1	26	193	50	5BET
5.0SMLJ17CA	17	18.9	20.9	1	27.6	181	20	5BEU
5.0SMLJ18CA	18	20	22.1	1	29.2	172	10	5BEV
5.0SMLJ20CA	20	22.2	24.5	1	32.4	155	5	5BEW
5.0SMLJ22CA	22	24.4	26.9	1	35.5	141	5	5BEX
5.0SMLJ24CA	24	26.7	29.5	1	38.9	129	5	5BEZ
5.0SMLJ26CA	26	28.9	31.9	1	42.1	119	5	5BFE
5.0SMLJ28CA	28	31.1	34.4	1	45.4	110	5	5BFG
5.0SMLJ30CA	30	33.3	36.8	1	48.4	103	5	5BFK
5.0SMLJ33CA	33	36.7	40.6	1	53.3	93.9	5	5BFM
5.0SMLJ36CA	36	40	44.2	1	58.1	86.1	5	5BFP
5.0SMLJ40CA	40	44.4	49.1	1	64.5	77.6	5	5BFR
5.0SMLJ43CA	43	47.8	52.8	1	69.4	72.1	5	5BFT
5.0SMLJ45CA	45	50	55.3	1	72.7	68.8	5	5BFV
5.0SMLJ48CA	48	53.3	58.9	1	77.4	64.7	5	5BFX
5.0SMLJ51CA	51	56.7	62.7	1	82.4	60.7	5	5BFZ
5.0SMLJ54CA	54	60	66.3	1	87.1	57.5	5	5BGE
5.0SMLJ58CA	58	64.4	71.2	1	93.6	53.5	5	5BGG
5.0SMLJ60CA	60	66.7	73.7	1	96.8	51.7	5	5BGK
5.0SMLJ64CA	64	71.1	78.6	1	103	48.6	5	5BGM
5.0SMLJ70CA	70	77.8	86	1	113	44.3	5	5BGP
5.0SMLJ75CA	75	83.3	92.1	1	121	41.4	5	5BGR
5.0SMLJ78CA	78	86.7	95.8	1	126	39.7	5	5BGT
5.0SMLJ85CA	85	94.4	104	1	137	36.5	5	5BGV
5.0SMLJ90CA	90	100	111	1	146	34.3	5	5BGX
5.0SMLJ100CA	100	111	123	1	162	30.9	5	5BGZ
5.0SMLJ110CA	110	122	135	1	177	28.3	5	5BHE
5.0SMLJ120CA	120	133	147	1	193	26	5	5BHG
5.0SMLJ130CA	130	144	159	1	209	24	5	5BHK
5.0SMLJ150CA	150	167	185	1	243	20.6	5	5BHM
5.0SMLJ160CA	160	178	197	1	259	19.3	5	5BHP
5.0SMLJ170CA	170	189	209	1	275	18.2	5	5BHR

Curve Characteristics

Fig. 1 - Peak Pulse Power Rating Curve

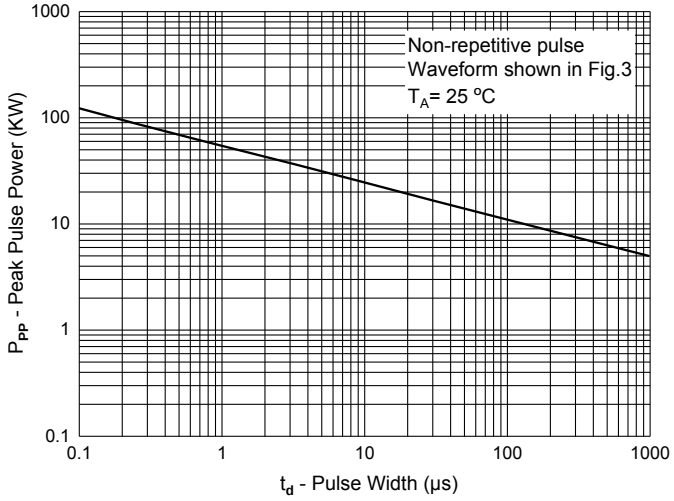


Fig. 2 - Typical Junction Capacitance

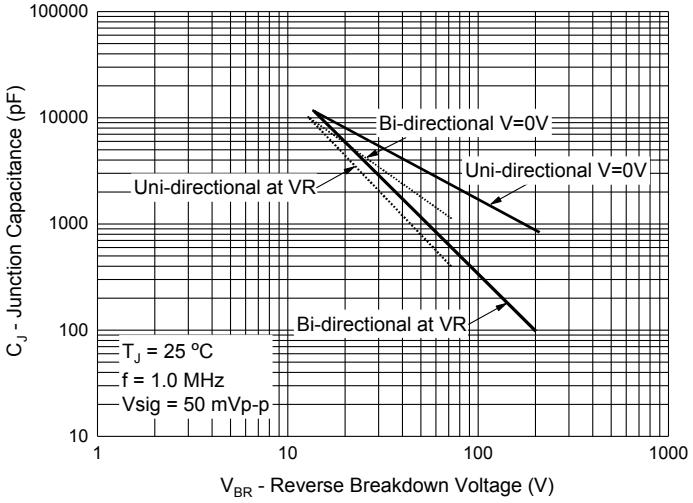


Fig. 3 - Pulse Waveform

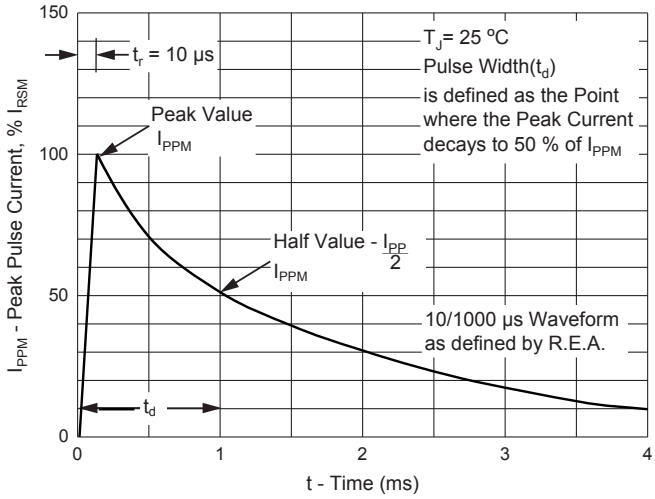
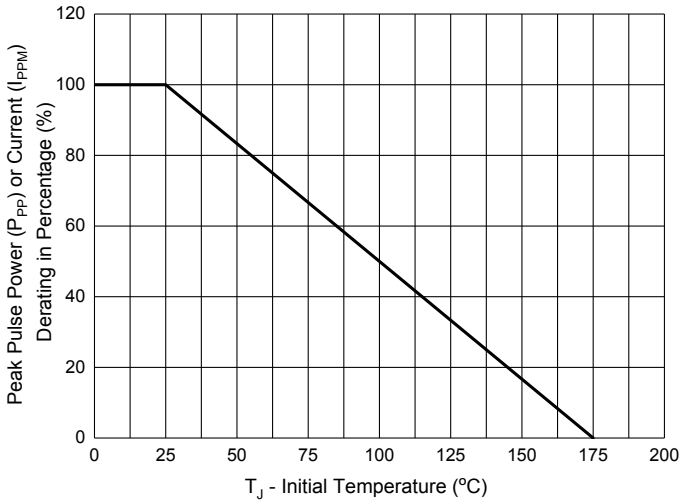


Fig. 4 - Pulse Derating Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Micro Commercial Components (MCC):

5.0SMLJ150A-TP 5.0SMLJ150CA-TP 5.0SMLJ15A-TP 5.0SMLJ15CA-TP 5.0SMLJ18A-TP 5.0SMLJ18CA-TP 5.0SMLJ24A-TP 5.0SMLJ24CA-TP 5.0SMLJ33A-TP 5.0SMLJ33CA-TP 5.0SMLJ36A-TP 5.0SMLJ36CA-TP 5.0SMLJ48A-TP 5.0SMLJ48CA-TP 5.0SMLJ12CA-TP 5.0SMLJ54CA-TP 5.0SMLJ130A-TP 5.0SMLJ85CA-TP 5.0SMLJ11A-TP 5.0SMLJ16CA-TP 5.0SMLJ75CA-TP 5.0SMLJ85A-TP 5.0SMLJ170A-TP 5.0SMLJ90A-TP 5.0SMLJ58CA-TP 5.0SMLJ64CA-TP 5.0SMLJ160CA-TP 5.0SMLJ28CA-TP 5.0SMLJ54A-TP 5.0SMLJ130CA-TP 5.0SMLJ43A-TP 5.0SMLJ17CA-TP 5.0SMLJ45CA-TP 5.0SMLJ75A-TP 5.0SMLJ13A-TP 5.0SMLJ14A-TP 5.0SMLJ14CA-TP 5.0SMLJ110CA-TP 5.0SMLJ110A-TP 5.0SMLJ28A-TP 5.0SMLJ20A-TP 5.0SMLJ160A-TP 5.0SMLJ22A-TP 5.0SMLJ40A-TP 5.0SMLJ43CA-TP 5.0SMLJ100A-TP 5.0SMLJ51CA-TP 5.0SMLJ78CA-TP 5.0SMLJ12A-TP 5.0SMLJ20CA-TP 5.0SMLJ22CA-TP 5.0SMLJ78A-TP 5.0SMLJ40CA-TP 5.0SMLJ70A-TP 5.0SMLJ16A-TP 5.0SMLJ58A-TP 5.0SMLJ13CA-TP 5.0SMLJ26CA-TP 5.0SMLJ17A-TP 5.0SMLJ51A-TP 5.0SMLJ170CA-TP 5.0SMLJ100CA-TP 5.0SMLJ90CA-TP 5.0SMLJ120CA-TP 5.0SMLJ64A-TP 5.0SMLJ120A-TP 5.0SMLJ45A-TP 5.0SMLJ70CA-TP 5.0SMLJ26A-TP 5.0SMLJ11CA-TP 5.0SMLJ30CA-TP 5.0SMLJ30A-TP 5.0SMLJ60CA-TP 5.0SMLJ60A-TP