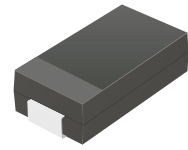


## TV15CJ6V8-G Thru. TV15CJ601-G


Breakdown Voltage: 6.8 to 600 Volts

Peak Pulse Power : 1500Watts

RoHS Device

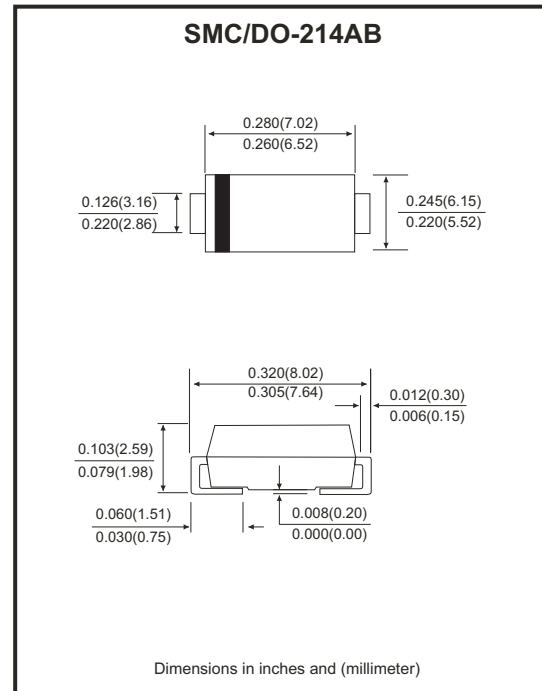


### Features

- Glass passivated chip.
- 1500W peak pulse power capability with a 10/1000 $\mu$ s waveform, repetitive rate (duty cycle):0.01%
- Low leakage.
- Uni and Bidirectional unit.
- Excellent clamping capability.
- Very fast response time.
- UL recognized file # E349157  Range: TV15CJ6V8(C)A thru. TV15CJ121(C)A

### Mechanical Data

- Case: DO-214AB/SMC molded plastic.
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denoted cathode end except bipolar.
- Weight: 0.230 gram (approx.)



### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

Characteristics	Symbol	Value	Units
Peak power dissipation with a 10/1000 $\mu$ s waveform <sup>(1)</sup>	P <sub>PP</sub>	1500	W
Peak pulse current with a 10/1000 $\mu$ s waveform <sup>(1)</sup>	I <sub>PP</sub>	See Next Table	A
Power dissipation on infinite heatsink at T <sub>L</sub> =75°C	P <sub>D</sub>	6.5	W
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load, uni-directional only <sup>(2)</sup>	I <sub>FSM</sub>	200	A
Maximum instantaneous forward voltage at 100A for uni-directional only <sup>(3)</sup>	V <sub>F</sub>	3.5/5.0	V
Operation junction temperature range	T <sub>J</sub>	-55 to +150	°C
Storage temperature range	T <sub>STG</sub>	-55 to +150	°C

Notes: 1. Non-repetitive current pulse, per Fig.5 and derated above T<sub>A</sub>=25°C, per Fig.1  
2. Measured on 8.3 ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum.  
3. V<sub>F</sub><3.5V for devices of V<sub>BR</sub><200V and V<sub>F</sub><5.0V for devices of V<sub>BR</sub>>201V

## Ratings and Characteristics Curve (TV15CJ6V8-G Thru. TV15CJ601-G)

Fig.1 - Pulse Derating Curve



Fig.2 - Max. Non-Repetitive Surge Current

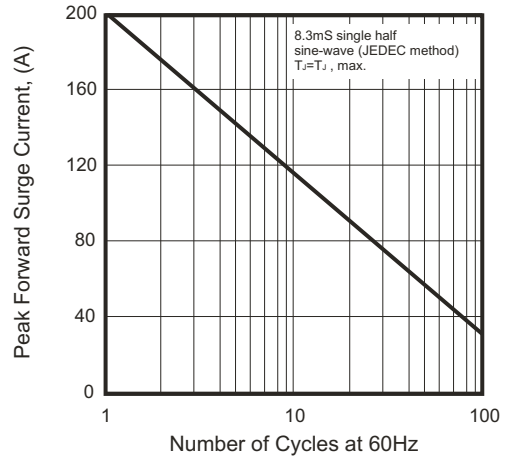


Fig.3 - Steady State Power Derating Curve

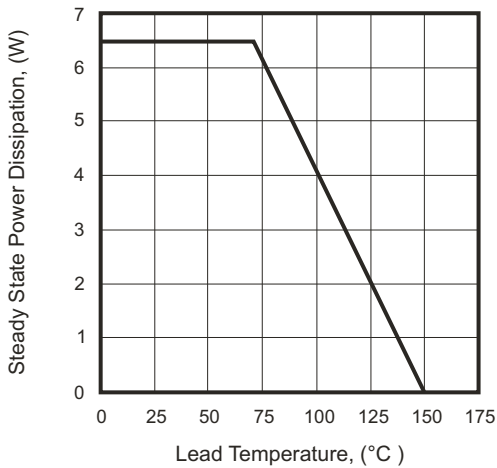


Fig.4 - Peak Pulse Power Rating Curve

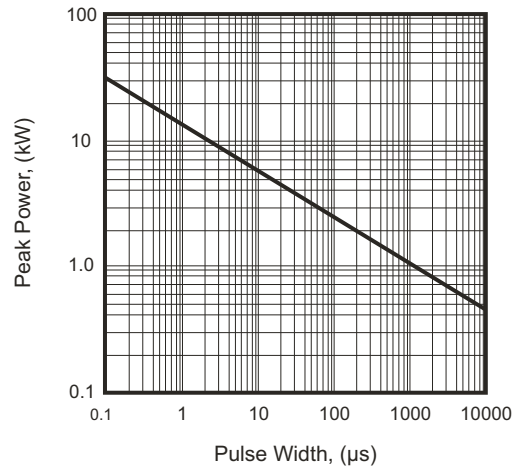


Fig.5 - Pulse Waveform

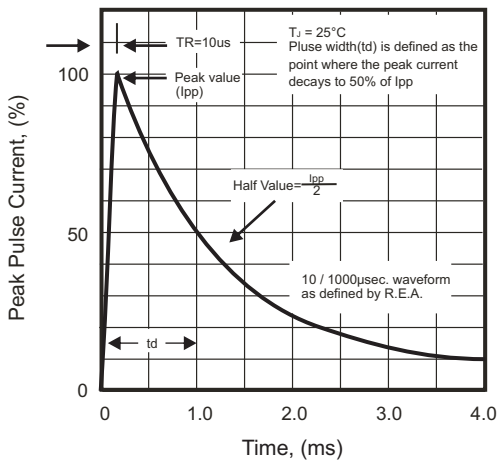
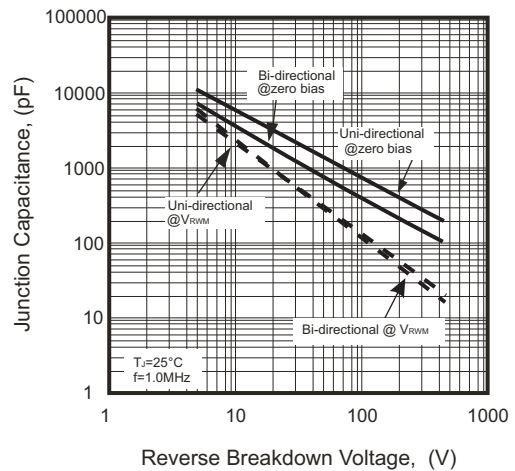


Fig.6 - Typical Junction Capacitance



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# SMD Transient Voltage Suppressor



## Electrical Characteristics (TV15CJ6V8-G Thru. TV15CJ601-G)

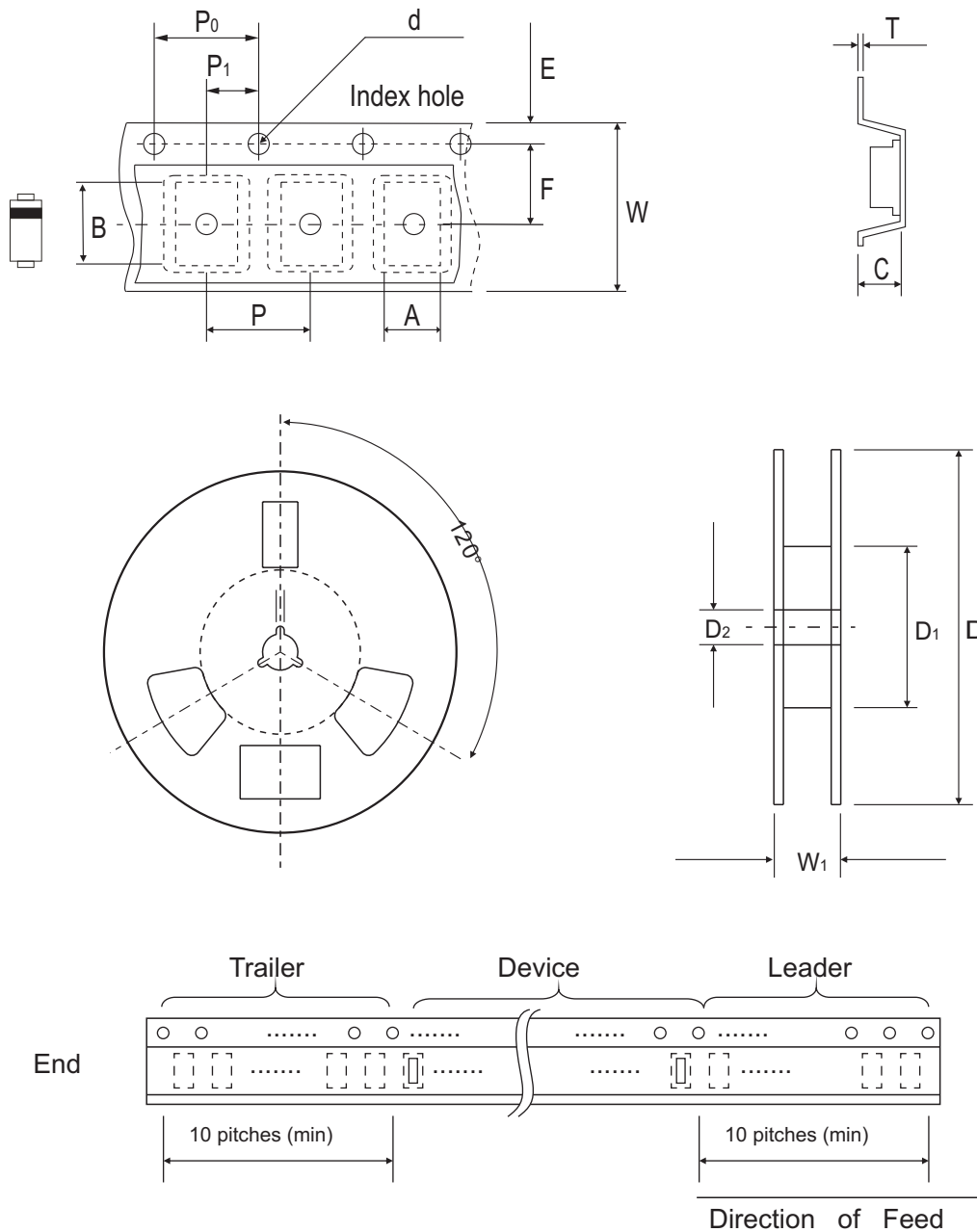
Part No.	Breakdown voltage V <sub>BR</sub> @ I <sub>T</sub>			Maximum Reverse Leakage @V <sub>RRWM</sub> I <sub>R</sub> (uA)	Working Peak Reverse Voltage V <sub>RRWM</sub> (V)	Maximum Reverse Surge Current I <sub>PP</sub> (A)	Maximum Clamping Voltage @I <sub>PP</sub> V <sub>C</sub> (V)	Device Marking Code	
	Min. (V)	Max. (V)	I <sub>T</sub> (mA)					UNI	BI
TV15CJ6V8(C)A-G	6.46	7.14	10	1000	5.8	142.86	10.5	6V8A	6V8C
TV15CJ7V5(C)A-G	7.13	7.88	10	500	6.4	132.74	11.3	7V5A	7V5C
TV15CJ8V2(C)A-G	7.79	8.61	10	200	7.0	123.97	12.1	8V2A	8V2C
TV15CJ9V1(C)A-G	8.65	9.56	1	50	7.8	111.94	13.4	9V1A	9V1C
TV15CJ100(C)A-G	9.50	10.50	1	10	8.6	103.45	14.5	10A	10C
TV15CJ110(C)A-G	10.45	11.55	1	5	9.4	96.15	15.6	11A	11C
TV15CJ120(C)A-G	11.40	12.60	1	5	10.2	89.82	16.7	12A	12C
TV15CJ130(C)A-G	12.35	13.65	1	1	11.1	82.42	18.2	13A	13C
TV15CJ150(C)A-G	14.25	15.75	1	1	12.8	70.75	21.2	15A	15C
TV15CJ160(C)A-G	15.20	16.80	1	1	13.6	66.67	22.5	16A	16C
TV15CJ180(C)A-G	17.10	18.90	1	1	15.3	59.52	25.2	18A	18C
TV15CJ200(C)A-G	19.00	21.00	1	1	17.1	54.15	27.7	20A	20C
TV15CJ220(C)A-G	20.90	23.10	1	1	18.8	49.02	30.6	22A	22C
TV15CJ240(C)A-G	22.80	25.20	1	1	20.5	45.18	33.2	24A	24C
TV15CJ270(C)A-G	25.65	28.35	1	1	23.1	40.00	37.5	27A	27C
TV15CJ300(C)A-G	28.50	31.50	1	1	25.6	36.23	41.4	30A	30C
TV15CJ330(C)A-G	31.35	34.65	1	1	28.2	32.82	45.7	33A	33C
TV15CJ360(C)A-G	34.20	37.80	1	1	30.8	30.06	49.9	36A	36C
TV15CJ390(C)A-G	37.05	40.95	1	1	33.3	27.83	53.9	39A	39C
TV15CJ430(C)A-G	40.85	45.15	1	1	36.8	25.30	59.3	43A	43C
TV15CJ470(C)A-G	44.65	49.35	1	1	40.2	23.15	64.8	47A	47C
TV15CJ510(C)A-G	48.45	53.55	1	1	43.6	21.40	70.1	51A	51C
TV15CJ560(C)A-G	53.20	58.80	1	1	47.8	19.48	77.0	56A	56C
TV15CJ620(C)A-G	58.90	65.10	1	1	53.0	17.65	85.0	62A	62C
TV15CJ680(C)A-G	64.60	71.40	1	1	58.1	16.30	92.0	68A	68C
TV15CJ750(C)A-G	71.25	78.75	1	1	64.1	14.56	103.0	75A	75C
TV15CJ820(C)A-G	77.90	86.10	1	1	70.1	13.27	113.0	82A	82C
TV15CJ910(C)A-G	86.45	95.55	1	1	77.8	12.00	125.0	91A	91C
TV15CJ101(C)A-G	95.00	105.00	1	1	85.5	10.95	137.0	100A	100C
TV15CJ111(C)A-G	104.50	115.50	1	1	94.0	9.87	152.0	110A	110C
TV15CJ121(C)A-G	114.00	126.00	1	1	102.0	9.09	165.0	120A	120C
TV15CJ131(C)A-G	123.50	136.50	1	1	111.0	8.38	179.0	130A	130C
TV15CJ151(C)A-G	142.50	157.50	1	1	128.0	7.25	207.0	150A	150C
TV15CJ161(C)A-G	152.00	168.00	1	1	136.0	6.85	219.0	160A	160C
TV15CJ171(C)A-G	161.50	178.50	1	1	145.0	6.41	234.0	170A	170C
TV15CJ181(C)A-G	171.00	189.00	1	1	154.0	6.10	246.0	180A	180C
TV15CJ201(C)A-G	190.00	210.00	1	1	171.0	5.47	274.0	200A	200C
TV15CJ221(C)A-G	209.00	231.00	1	1	185.0	4.57	328.0	220A	220C
TV15CJ251(C)A-G	237.50	262.50	1	1	214.0	4.36	344.0	250A	250C
TV15CJ301(C)A-G	285.00	315.00	1	1	256.0	3.62	414.0	300A	300C
TV15CJ351(C)A-G	332.50	367.50	1	1	299.3	3.11	482.0	350A	350C
TV15CJ381(C)A-G	361.00	399.00	1	1	324.9	2.86	524.4	380A	380C
TV15CJ401(C)A-G	380.00	420.00	1	1	342.0	2.72	548.0	400A	400C
TV15CJ441(C)A-G	418.00	462.00	1	1	376.2	2.47	602.0	440A	440C
TV15CJ501(C)A-G	475.00	525.00	1	1	427.5	2.17	690.0	500A	500C
TV15CJ521(C)A-G	494.00	546.00	1	1	444.6	2.09	717.6	520A	520C
TV15CJ551(C)A-G	522.50	577.50	1	1	470.3	1.98	759.0	550A	550C
TV15CJ601(C)A-G	570.00	630.00	1	1	513.0	1.81	828.0	600A	600C

- Note: 1) Suffix A denotes 5% tolerance devices.  
 2) Add suffix "C" or "CA" after part number to specify Bi-directional devices.  
 3) For Bi-Directional devices having V<sub>R</sub> of 10 volts and under, the I<sub>R</sub> limit is double.

Company reserves the right to improve product design, functions and reliability without notice.

REV:B

## Reel Taping Specification



DO-214AB (SMC)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.05 ± 0.10	8.31 ± 0.10	3.29 (max)	1.55 ± 0.10	330.00	50.00 (min)	13.00 ± 0.20
	(inch)	0.238 ± 0.004	0.327 ± 0.004	0.130 (max)	0.061 ± 0.004	13.000	1.969 (min)	0.512 ± 0.008

DO-214AB (SMC)	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	7.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	16.00 ± 0.30	22.40 (max)
	(inch)	0.069 ± 0.004	0.295 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.630 ± 0.012	0.882 (max)

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REV:B

## Marking Code

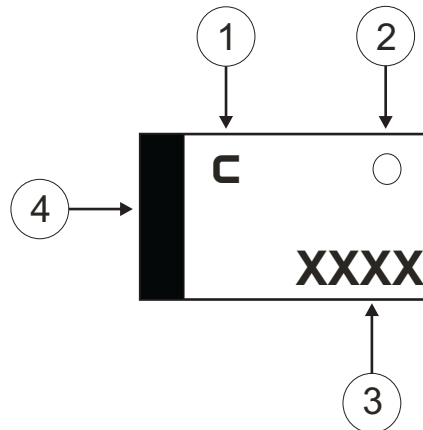
1. **C**: COMCHIP

2. **○**: Package

○	PKG
A	SMA
B	SMB
C	SMC

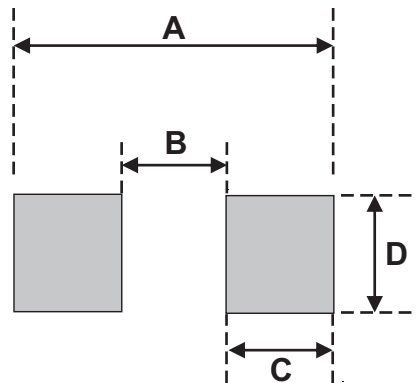
3. XXX/XXXX: Marking code (see Page. 3)

4. **█**: Cathod Band



## Suggested PAD Layout

SIZE	DO-214AB(SMC)	
	(mm)	(inch)
A	8.13	0.320
B	4.69 MAX	0.185 MAX
C	1.52 MIN	0.06 MIN
D	3.20 MIN	0.126 MIN



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
DO-214AB (SMC)	3,000	13