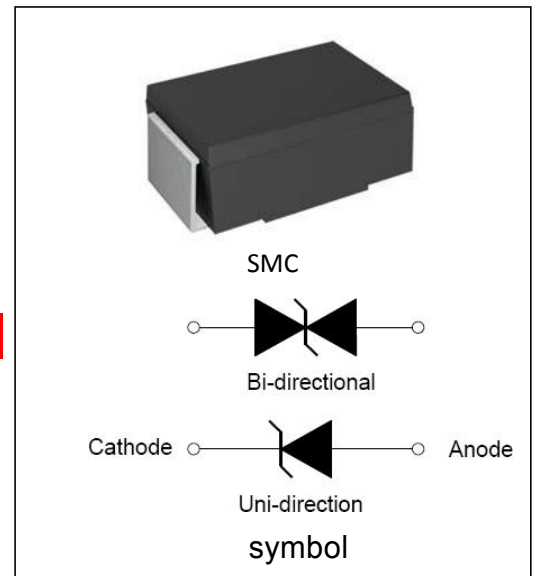


DESCRIPTION:

TVS diodes can be used in a wide range of applications which like consumer electronic products, automotive industries, munitions, telecommunications, aerospace industries, and intelligent control systems.

FEATURES:

- ✧ Bidirectional Protection.
- ✧ Fast Response Time : Typically < 1.5ns.
- ✧ Glass Passivated Junction.
- ✧ Built-in Strain relief.
- ✧ Low inductance.
- ✧ High temperature solder:260°C/10 seconds at terminal.


Mechanical Characteristics

- ✧ JEDEC DO-214AB(SMC-3)package
- ✧ Molding compound flammability: UL 94V-0
- ✧ Marking:SMCJ/XX CA(A)2
- ✧ Standard Packaging: EIA STD RS-481
- ✧ ROHS Compliant

Applications

- ✧ I/O Interfaces
- ✧ Power lines
- ✧ Automotive and Telecommunication
- ✧ Computers & Consumer Electronics
- ✧ Industrial Electronics

ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$, RH=45%-75%, unless otherwise noted)

Rating	Symbol	Value	Units
Peak Pulse Power Dissipation on 10/1000 μs waveform (Note 1,FIG.1)	PPPM	Minimum 1500	Watts
Power Dissipation on infinite heat sink $T_A=50^{\circ}\text{C}$ (Fig4)	PD	6.5	W
Operating Junction Temperature range	TJ	-55to+150	$^{\circ}\text{C}$
Storage Temperature range	TSTG	-55to+150	$^{\circ}\text{C}$

Electrical Characteristics

PART NUMBER		REVERSE STAND- OFF VOLTAGE	BREAKDOWN VOLTAGE VBR(V)MAX. X@IT		TEST CURRENT	REVERSE LEAKAGE @VRWM	PEAK PULSE CURRENT	MAXIMUM CLAMPING VOLTAGE @IPP
BI-POLAR	UNI-POLAR	VRWM PIN1, 3-2(V)	VBR PIN1, 3-2 MIN(V)	VBR PIN1, 3-2(V) MAX(V)	IT(MA)	IR PIN1, 3-2(μA)	IPP PIN1, 3-2(A)	VC(V)
1.5KSMCJ5.0CA-3	1.5KSMCJ5.0A-3	5.0	6.4	7.25	10	800	163.0	9.2
1.5KSMCJ6.0CA-3	1.5KSMCJ6.0A-3	6.0	6.67	7.67	10	800	145.6	10.3
1.5KSMCJ6.5CA-3	1.5KSMCJ6.5A-3	6.5	7.22	8.3	10	500	134.0	11.2
1.5KSMCJ7.0CA-3	1.5KSMCJ7.0A-3	7.0	7.78	8.95	10	200	125.0	12.0
1.5KSMCJ7.5CA-3	1.5KSMCJ7.5A-3	7.5	8.33	9.58	1	100	116.0	12.9
1.5KSMCJ8.0CA-3	1.5KSMCJ8.0A-3	8.0	8.89	10.23	1	50	110.3	13.6
1.5KSMCJ8.5CA-3	1.5KSMCJ8.5A-3	8.5	9.44	10.82	1	20	104.2	14.4
1.5KSMCJ9.0CA-3	1.5KSMCJ9.0A-3	9.0	10.00	11.50	1	10	97.4	15.4
1.5KSMCJ10CA-3	1.5KSMCJ10A-3	10	11.10	12.30	1	10	88.3	17.0
1.5KSMCJ11CA-3	1.5KSMCJ11A-3	11	12.20	14.00	1	1	82.3	18.2
1.5KSMCJ12CA-3	1.5KSMCJ12A-3	12	13.30	14.70	1	1	75.5	19.9
1.5KSMCJ13CA-3	1.5KSMCJ13A-3	13	14.40	16.50	1	1	69.8	21.5
1.5KSMCJ14CA-3	1.5KSMCJ14A-3	14	15.60	17.20	1	1	64.7	23.2
1.5KSMCJ15CA-3	1.5KSMCJ15A-3	15	16.70	19.20	1	1	61.5	24.4
1.5KSMCJ16CA-3	1.5KSMCJ16A-3	16	17.80	19.70	1	1	57.7	26.0

Notes:

For bidirectional type having VRWM of 20 volts and less, the IR limit is double.

For parts without A (VBR is ± 10% and Vc is 5% higher than A parts).

PART NUMBER		REVERSE STAND- OFF VOLTAGE	BREAKDOWN VOLTAGE VBR(V)MA X.@IT		TEST CURRENT	REVERSE LEAKAGE @VRWM	PEAK PULSE CURRENT	MAXIMUM CLAMPING VOLTAGE @IPP
BI-POLAR	UNI-POLAR	VRWM PIN1, 3-2(v)	VBR PIN1, 3-2 MIN(v)	VBR PIN1, 3-2(v) MAX(v)	IT(MA)	IR PIN1, 3-2(qA)	IPP PIN1, 3-2(A)	VC(v)
1.5KSMCJ17CA-3	1.5KSMCJ17A-3	17	18.90	21.70	1	1	54.4	27.6
1.5KSMCJ18CA-3	1.5KSMCJ18A-3	18	20.00	23.30	1	1	51.4	29.2
1.5KSMCJ20CA-3	1.5KSMCJ20A-3	20	22.20	25.50	1	1	46.3	32.4
1.5KSMCJ22CA-3	1.5KSMCJ22A-3	22	24.40	28.00	1	1	42.3	35.5
1.5KSMCJ24CA-3	1.5KSMCJ24A-3	24	26.70	30.70	1	1	38.6	38.9
1.5KSMCJ26CA-3	1.5KSMCJ26A-3	26	28.90	33.20	1	1	35.7	42.1
1.5KSMCJ28CA-3	1.5KSMCJ28A-3	28	31.10	35.80	1	1	33.1	45.4
1.5KSMCJ30CA-3	1.5KSMCJ30A-3	30	33.30	38.30	1	1	31.0	48.4
1.5KSMCJ33CA-3	1.5KSMCJ33A-3	33	36.70	42.20	1	1	28.2	53.3
1.5KSMCJ36CA-3	1.5KSMCJ36A-3	36	40.00	46.00	1	1	25.9	58.1
1.5KSMCJ40CA-3	1.5KSMCJ40A-3	40	44.40	51.10	1	1	23.3	64.5
1.5KSMCJ43CA-3	1.5KSMCJ43A-3	43	47.80	52.80	1	1	21.7	69.1
1.5KSMCJ45CA-3	1.5KSMCJ145A-3	45	50.00	57.50	1	1	20.6	72.7
1.5KSMCJ48CA-3	1.5KSMCJ48A-3	48	53.30	58.90	1	1	19.4	77.4
1.5KSMCJ51CA-3	1.5KSMCJ51A-3	51	56.70	65.20	1	1	18.2	82.4
1.5KSMCJ54CA-3	1.5KSMCJ54A-3	54	60.00	69.00	1	1	17.3	87.1
1.5KSMCJ58CA-3	1.5KSMCJ58A-3	58	64.40	71.20	1	1	16.1	93.6
1.5KSMCJ60CA-3	1.5KSMCJ60A-3	60	66.70	73.70	1	1	15.5	96.8
1.5KSMCJ64CA-3	1.5KSMCJ64A-3	64	71.10	78.60	1	1	14.6	103.0
1.5KSMCJ70CA-3	1.5KSMCJ70A-3	70	77.8	86.00	1	1	13.3	113.0
1.5KSMCJ75CA-3	1.5KSMCJ75A-3	75	83.30	92.10	1	1	12.4	121.0

Notes:

For bidirectional type having V_{RWM} of 20 volts and less, the IR limit is double.
 For parts without A (V_{BR} is $\pm 10\%$ and V_c is 5% higher than A parts.

RATINGS AND V-I CHARACTERISTICS CURVES ($T_A=25^\circ\text{C}$, unless otherwise noted)

Fig. 1 - Peak Pulse Power Rating

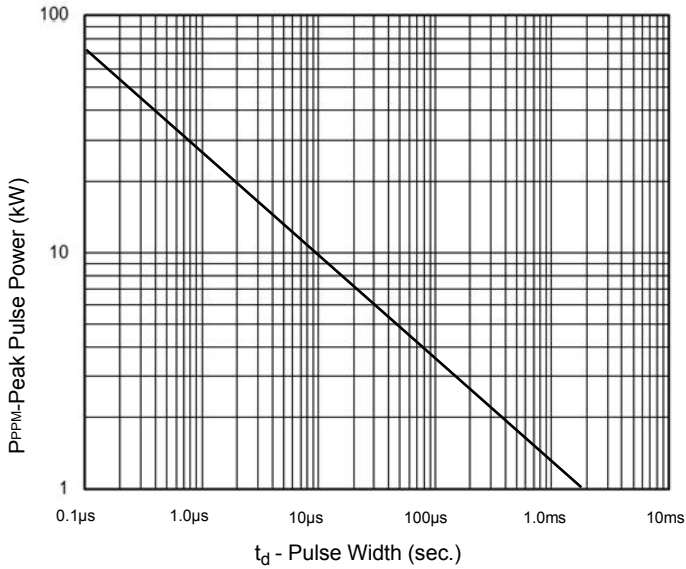


Fig. 3 - Pulse

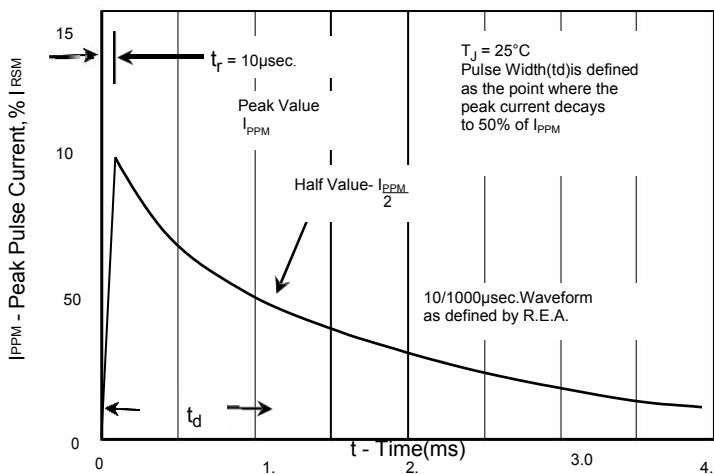


Fig. 5 - Steady State Power Derating Curve

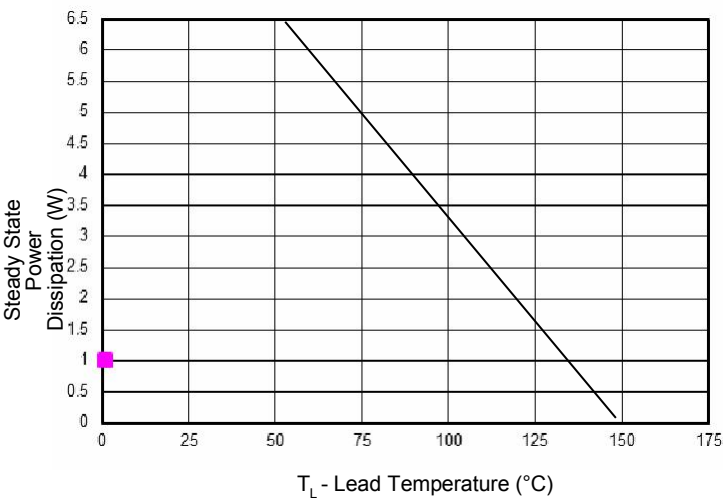


Fig. 2 - Pulse Dissipating Curve

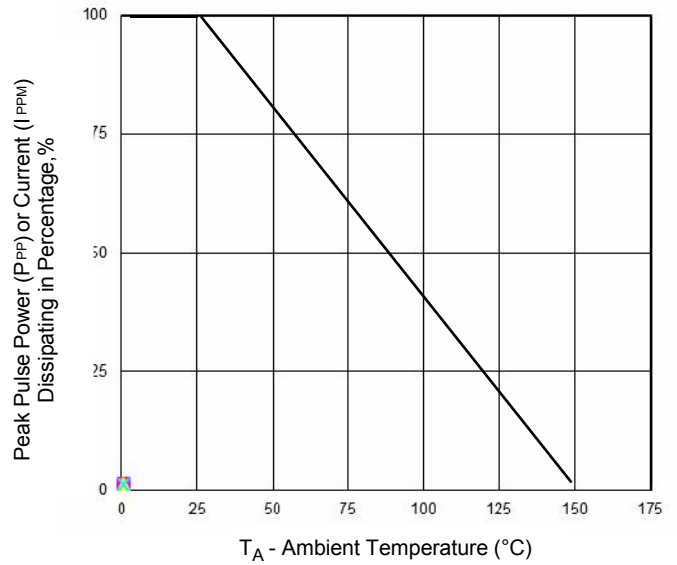


Fig. 4 - Typical Junction Capacitance

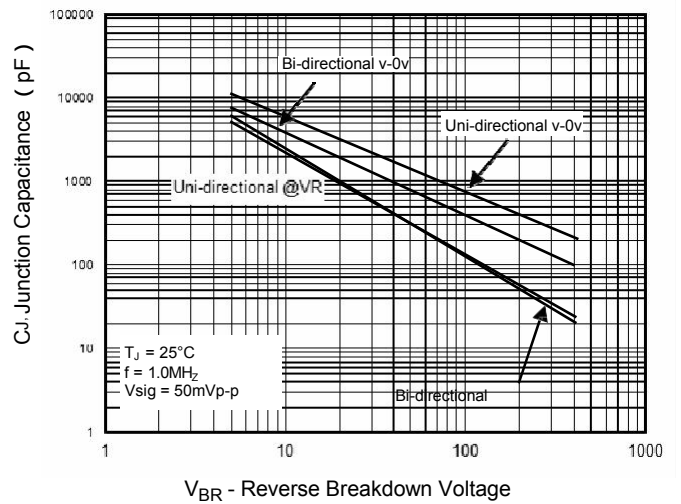
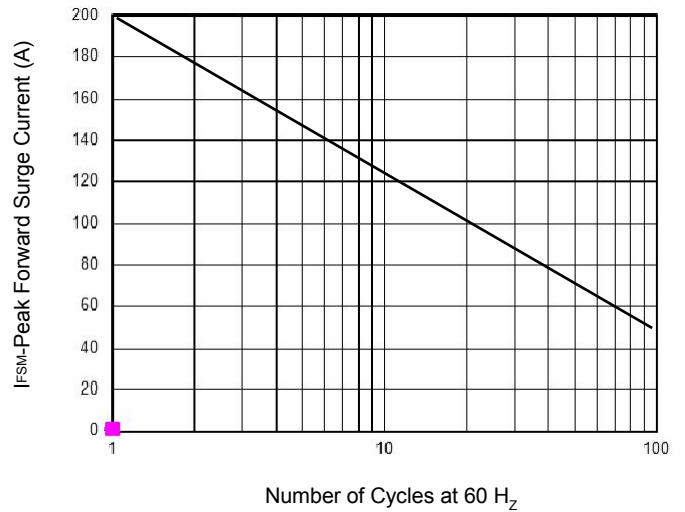
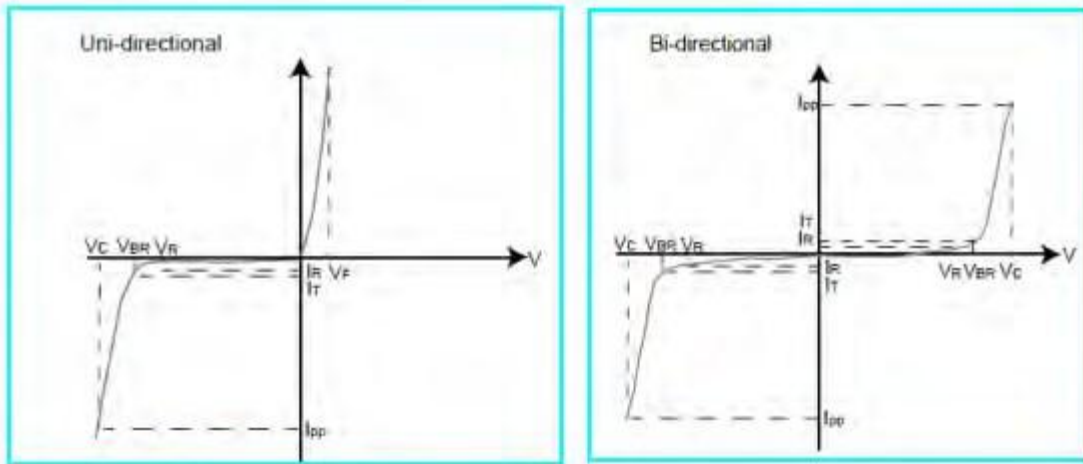
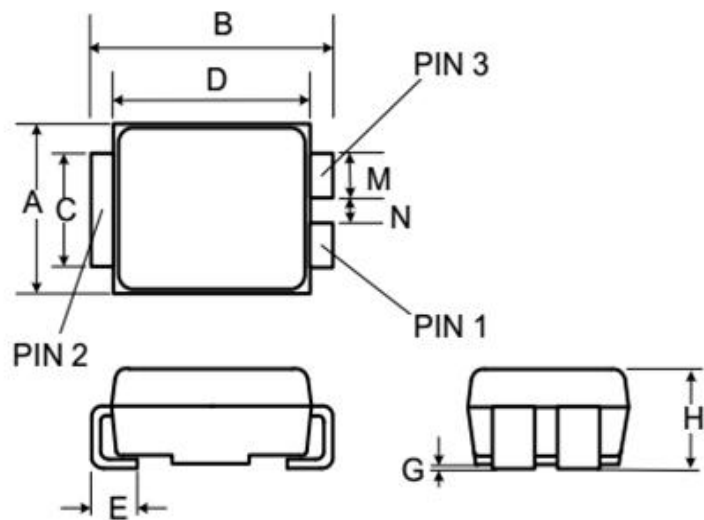


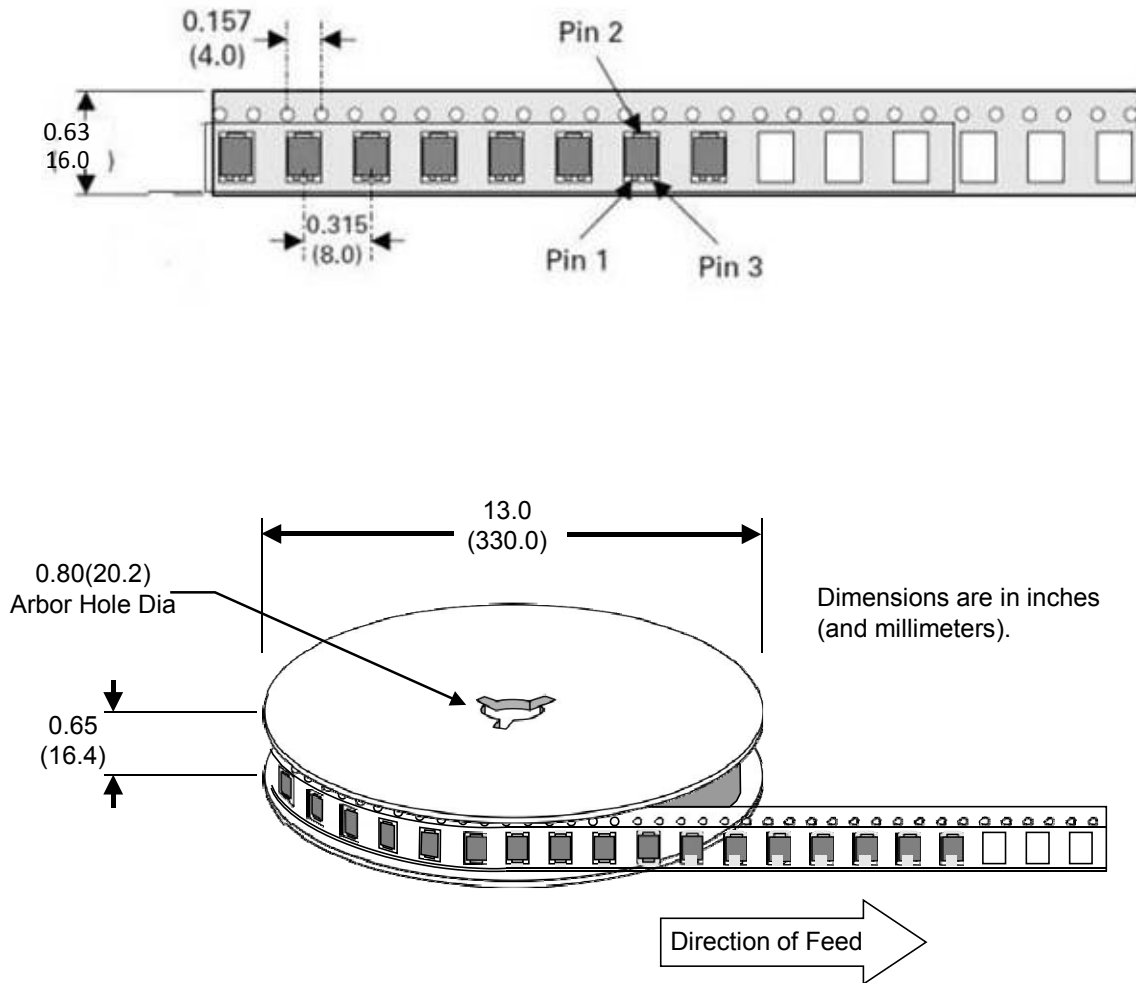
Fig. 6 - Maximum Non-repetitive Forward Surge current uni-directional only




PACKAGE MECHANICAL DATA

Ref.(mm)	Millimeters	
	Min	Max.
A	5.59	6.22
B	7.75	8.13
C	2.90	3.20
D	6.60	7.11
E	0.76	1.52
G	-	0.203
H	2.06	2.62
M	0.8	1.3
N	0.6	1.0



TAPE AND REEL SPECIFICATION - SMF

Summary of Packing Options

Package Type	Description	Quantity(pcs)
DO-214AB(SMC-3)	Tape & Reel - 12mm/13"tape	3000

 Website: <http://www.jksemit.com>

For additional information, please contact your local Sales Representative.

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