TRANSIENT VOLTAGE SUPPRESSOR

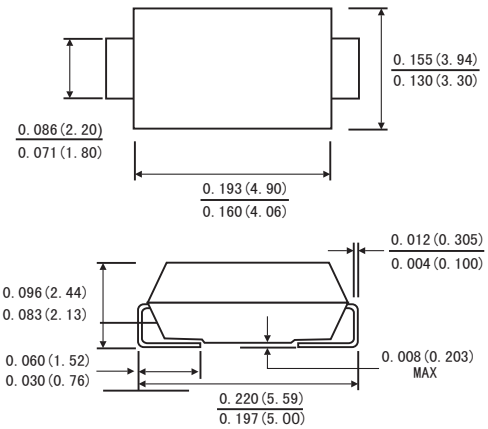
Reverse Voltage - 5.0 to 440 Volts
PEAK PULSE POWER -600 Watts

Features

- 600 Watts Pulse capability
- Excellent clamping capability
- Low incremental surge resistance
- Fast response time
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Component inaccordance to RoHS 2015/863/EU
- AEC-Q101 qualified and PPAP capable

AEC-Q101 Qualified

SMB(DO-214AA)



Dimensions in inches and (millimeters)

Mechanical Data

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: Solder Plated
- Polarity: By cathode band denotes uni-directional device none cathode band denotes bi-directional device

DEVICES FOR BIDIRECTIONAL APPLICATIONS

- 1. For bi directional use C suffix for Types-
- 2. Electrical characteristics apply in both directions

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating at 25°C ambient temperature unless otherwise specified

Parameter(参数)	Symbol(符号)	Value(数值)	Units(单位)
PeakPowerDissipation(Note1.)@T_L =25°C,PulseWidth=1ms	P_{PK}	600	W
ForwardSurgeCurrent(Note2.)@T_A =25°C	I_{FSM}	100	A
PowerDissipationOnInfiniteHeatsink,@T_A =50°C	$P_{M(AV)}$	5.0	W
ThermalResistanceJunctionToAmbientAir(Note3.)	$R_{\theta JA}$	100	°C/W
ThermalResistanceJunctionToLeads	$R_{\theta JL}$	20	°C/W
StorageTemperatureRange	T_{STG}	-55to150	°C
OperatingJunctionTemperatureRange	T_J	-55to150	°C

1） 10X1000us,non-repetitive

2）1/2sinewave(orequivalentsquarewave),PW=8.3ms,dutycycle=4pulsesperminutemaximum

3）Mountedonminimumrecommendedpadlayout

Part Number	PartNumber	Device MarkingCode		Reverse Standoff Voltage VR (Volts)	BreakdownVoltage VBR(Volts)@IT		Test Current IT(mA)	Maximum Clamping VoltageVC@ IPP(Volts)	Maximum PeakPulse CurrentIPP (A)	Maximum Reverse Leakage IR @ VR (μ A)
UNI	BI	UNI	BI		MIN	MAX				
SMBJ5.0A-V	SMBJ5.0CA-V	KE	AE	5	6.40	7.07	10	9.6	65.2	500
SMBJ6.0A-V	SMBJ6.0CA-V	KG	AG	6	6.67	7.37	10	10.3	58.3	300
SMBJ6.5A-V	SMBJ6.5CA-V	KK	AK	6.5	7.22	7.98	10	11.2	53.6	200
SMBJ7.0A-V	SMBJ7.0CA-V	KM	AM	7	7.78	8.60	10	12.0	50.0	100
SMBJ7.5A-V	SMBJ7.5CA-V	KP	AP	7.5	8.33	9.21	1	12.9	46.6	50
SMBJ8.0A-V	SMBJ8.0CA-V	KR	AR	8	8.89	9.83	1	13.6	44.2	50
SMBJ8.5A-V	SMBJ8.5CA-V	KT	AT	8.5	9.44	10.40	1	14.4	41.7	30
SMBJ9.0A-V	SMBJ9.0CA-V	KV	AV	9	10.00	11.10	1	15.4	39.0	30
SMBJ10A-V	SMBJ10CA-V	KX	AX	10	11.10	12.30	1	17.0	35.3	3
SMBJ11A-V	SMBJ11CA-V	KZ	AZ	11	12.20	13.50	1	18.2	33.0	1
SMBJ12A-V	SMBJ12CA-V	LE	BE	12	13.30	14.70	1	19.9	30.2	1
SMBJ13A-V	SMBJ13CA-V	LG	BG	13	14.40	15.90	1	21.5	28.0	1
SMBJ14A-V	SMBJ14CA-V	LK	BK	14	15.60	17.20	1	23.2	25.9	1
SMBJ15A-V	SMBJ15CA-V	LM	BM	15	16.70	18.50	1	24.4	24.6	1
SMBJ16A-V	SMBJ16CA-V	LP	BP	16	17.80	19.70	1	26.0	23.1	1
SMBJ17A-V	SMBJ17CA-V	LR	BR	17	18.90	20.90	1	27.6	21.8	1
SMBJ18A-V	SMBJ18CA-V	LT	BT	18	20.00	22.10	1	29.2	20.6	1
SMBJ20A-V	SMBJ20CA-V	LV	BV	20	22.20	24.50	1	32.4	18.6	1
SMBJ22A-V	SMBJ22CA-V	LX	BX	22	24.40	26.90	1	35.5	16.9	1
SMBJ24A-V	SMBJ24CA-V	LZ	BZ	24	26.70	29.50	1	38.9	15.5	1
SMBJ26A-V	SMBJ26CA-V	ME	CE	26	28.90	31.90	1	42.1	14.3	1
SMBJ28A-V	SMBJ28CA-V	MG	CG	28	31.10	34.40	1	45.4	13.3	1
SMBJ30A-V	SMBJ30CA-V	MK	CK	30	33.30	36.80	1	48.4	12.4	1
SMBJ33A-V	SMBJ33CA-V	MM	CM	33	36.70	40.60	1	53.3	11.3	1
SMBJ36A-V	SMBJ36CA-V	MP	CP	36	40.00	44.20	1	58.1	10.4	1
SMBJ40A-V	SMBJ40CA-V	MR	CR	40	44.40	49.10	1	64.5	9.3	1
SMBJ43A-V	SMBJ43CA-V	MT	CT	43	47.80	52.80	1	69.4	8.7	1
SMBJ45A-V	SMBJ45CA-V	MV	CV	45	50.00	55.30	1	72.7	8.3	1
SMBJ48A-V	SMBJ48CA-V	MX	CX	48	53.30	58.90	1	77.4	7.8	1
SMBJ51A-V	SMBJ51CA-V	MZ	CZ	51	56.70	62.70	1	82.4	7.3	1
SMBJ54A-V	SMBJ54CA-V	NE	DE	54	60.00	66.30	1	87.1	6.9	1
SMBJ58A-V	SMBJ58CA-V	NG	DG	58	64.40	71.20	1	93.6	6.5	1
SMBJ60A-V	SMBJ60CA-V	NK	DK	60	66.70	73.70	1	96.8	6.2	1
SMBJ64A-V	SMBJ64CA-V	NM	DM	64	71.10	78.60	1	103.0	5.9	1
SMBJ70A-V	SMBJ70CA-V	NP	DP	70	77.80	86.00	1	113.0	5.3	1
SMBJ75A-V	SMBJ75CA-V	NR	DR	75	83.30	92.10	1	121.0	5.0	1

SMBJ78A-V	SMBJ78CA-V	NT	DT	78	86.70	95.80	1	126.0	4.8	1
SMBJ85A-V	SMBJ85CA-V	NV	DV	85	94.40	104.00	1	137.0	4.4	1
SMBJ90A-V	SMBJ90CA-V	NX	DX	90	100.0	111.00	1	146.0	4.1	1
SMBJ100A-V	SMBJ100CA-V	NZ	DZ	100	111.0	123.00	1	162.0	3.7	1
SMBJ110A-V	SMBJ110CA-V	PE	EE	110	122.0	135.00	1	177.0	3.4	1
SMBJ120A-V	SMBJ120CA-V	PG	EG	120	133.0	147.00	1	193.0	3.1	1
SMBJ130A-V	SMBJ130CA-V	PK	EK	130	144.0	159.00	1	209.0	2.9	1
SMBJ150A-V	SMBJ150CA-V	PM	EM	150	167.0	185.00	1	243.0	2.5	1
SMBJ160A-V	SMBJ160CA-V	PP	EP	160	178.0	197.00	1	259.0	2.3	1
SMBJ170A-V	SMBJ170CA-V	PR	ER	170	189.0	209.00	1	275.0	2.2	1
SMBJ180A-V	SMBJ180CA-V	PT	ET	180	201.0	222.00	1	292.0	2.1	1
SMBJ190A-V	SMBJ190CA-V	PV	EV	190	211.0	233.00	1	306.0	2.0	1
SMBJ200A-V	SMBJ200CA-V	PX	EX	200	224.0	247.00	1	324.0	1.9	1
SMBJ210A-V	SMBJ210CA-V	PZ	EZ	210	233.0	258.00	1	324.0	1.9	1
SMBJ220A-V	SMBJ220CA-V	QE	FE	220	246.0	272.00	1	356.0	1.7	1
SMBJ250A-V	SMBJ250CA-V	QG	FG	250	279.0	309.00	1	405.0	1.5	1
SMBJ300A-V	SMBJ300CA-V	QK	FK	300	335.0	371.00	1	486.0	1.3	1
SMBJ350A-V	SMBJ350CA-V	QM	FM	350	391.0	432.00	1	567.0	1.1	1
SMBJ400A-V	SMBJ400CA-V	QP	FP	400	447.0	494.00	1	648.0	0.9	1

※ForBi-directionaltypehavingVRWMof10Voltsandless,theIRlimitisdouble

1. Atransientsuppressorisnormallyselectedaccordingtotheworkingpeakreversevoltage(VRWM),whichshould beequaltoorgreaterthantheDCorcontinuouspeakoperatingvoltagelevel.
2. VBRmeasuredatpulsetestcurrentITatanambienttemperatureof25°C.
3. SurgecurrentwaveformperFigure1andderateperFigure3.

TypicalCharacteristics

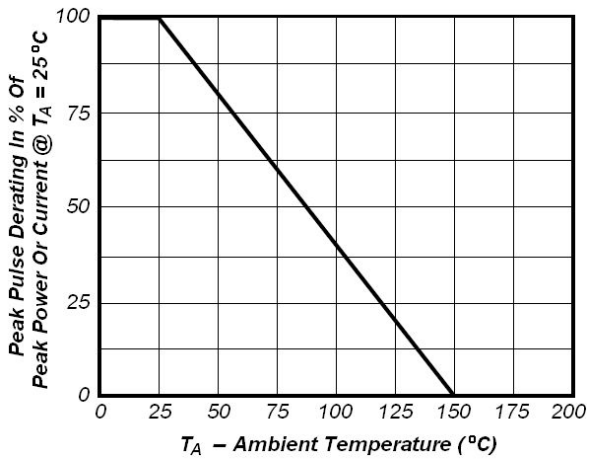


Fig1.PulseDeartingCurve

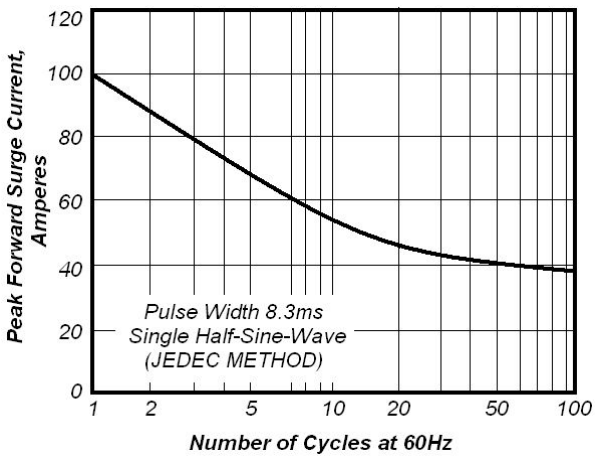


Fig2.MaximumNon-RepetitivePeak ForwardSurgeCurrent

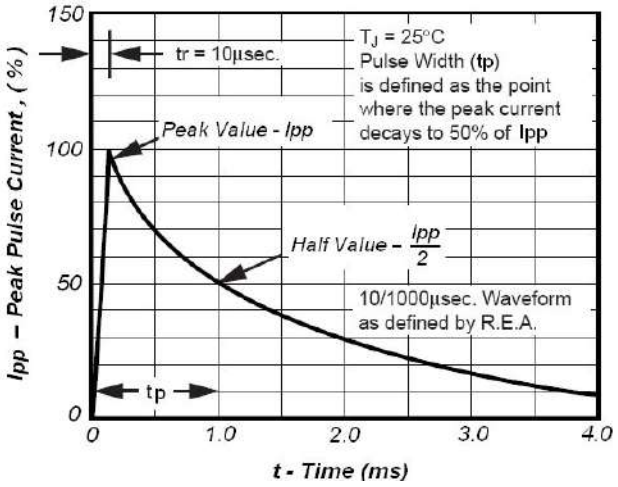


Fig3.PulseWaveform

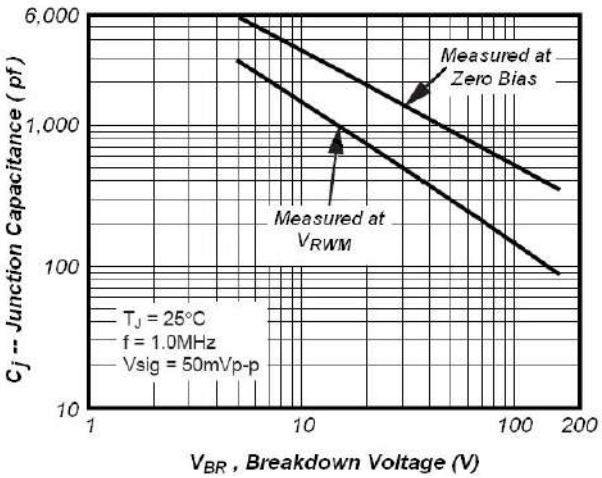


Fig4.TypicalJunctionCapacitance

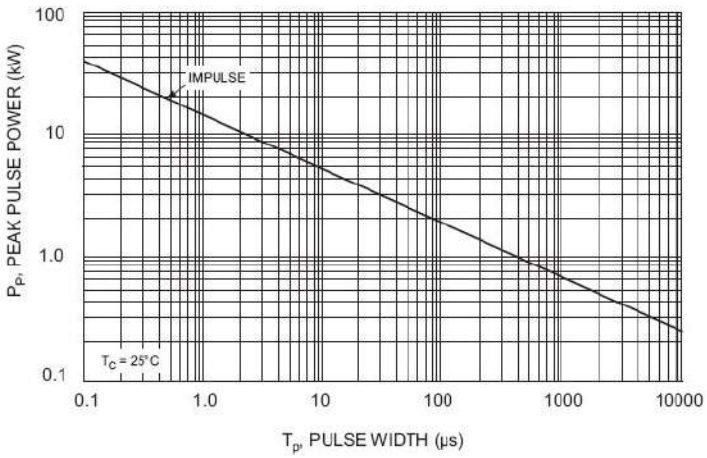


Fig5.PeakPulsePowerRatingcurve

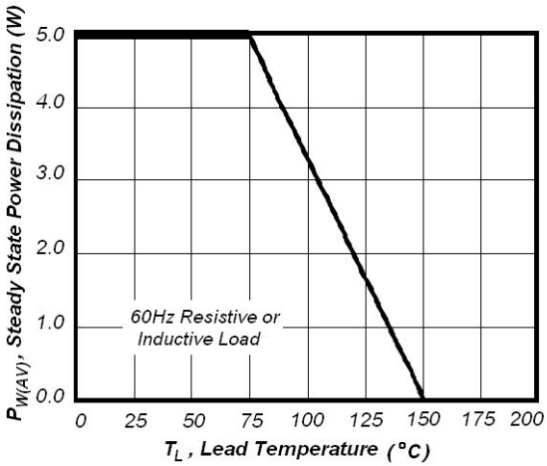


Fig6.SteadyStatePower
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