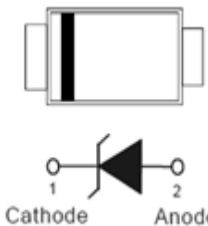
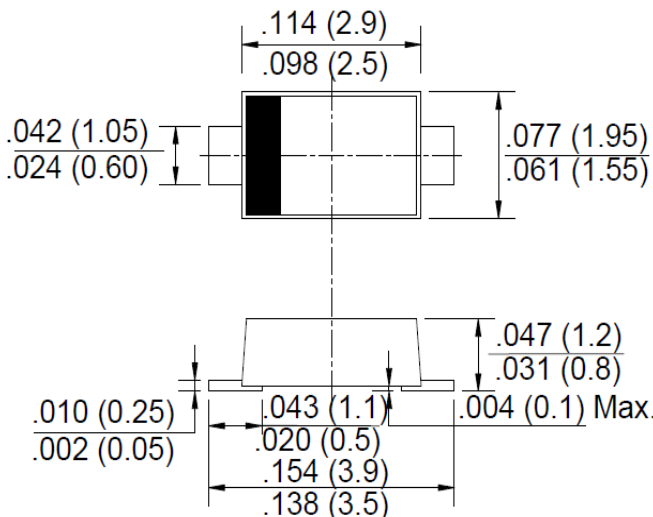


Transient Voltage Suppressors	REVERSE VOLTAGE 5 - 43 Volts Power Dissipation - 600 Watts
<b>FEATURES</b> <ul style="list-style-type: none"> <li>●Glass passivated chip</li> <li>●600 W peak pulse power capability with a 10/1000 <math>\mu</math>s waveform, repetitive rate (duty cycle):0.01 %</li> <li>●Low leakage</li> <li>●Uni and Bidirectional unit</li> <li>●Excellent clamping capability</li> <li>●Very fast response time</li> <li>●RoHS compliant</li> <li>●Epoxy: UL 94V-0 rate flame retardant</li> </ul> <b>MECHANICAL DATA</b> <ul style="list-style-type: none"> <li>●Method: SOD-123FL</li> <li>●Lead: Solderable per MIL-STD-750, method 2026</li> <li>●Polarity: Color band denotes cathode end Except Bipolar</li> <li>●Mounting position: Any</li> <li>●Weight: Approx. 0.0012 ounce, 0.033grams</li> </ul> 	<b>SOD-123FL</b>  <p>Dimensions in inches and (millimeters)</p>

## 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%.

PARAMETER	SYMBOL	VALUE	UNIT
Peak power dissipation with a 10/1000 $\mu$ s waveform (Note 1)	PPP	600	W
Peak Pulse Current with a 10/1000 $\mu$ s waveform (Notes 1)	IPP	See Next Table	A
Peak forward surge current, 8.3 ms single half sine-wave unidirectional only(Note 2)	IFSM	60	A
Maximum instantaneous forward voltage at 25 A for unidirectional only(Note 3)	VF	3.5	V
Power dissipation on infinite heatsink at TL=75°C	PD	3.0	w
Operating Junction Temperature Range	TJ	-55 to +150	°C
Storage Temperature Range	TSTG	-55 to +150	°C

Note: 1.Non-repetitive current pulse per Fig.5 and derated above TA= 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 max.

3.VF<3.5V for devices of VBR<200V.

# HSVD005AF1F thru HSVD043CAF1F



Part Number		Marking Code		Working Peak Reverse Voltage	Breakdown Voltage			Max. Reverse Leakage		Max. Clamping Voltage	Max. Reverse Surge Current
				VRWM	VBR @ IT			IR @ VRWM		VC@IPP	IPP
					Min.	Max.	IT				
				V	V	V	m A	µA		V	A
HSVD005AF1F	HSVD005CAF1F	KE	KG	5	6.4	7	10	800	1600	9.2	65.3
HSVD006AF1F	HSVD006CAF1F	KG	AG	6	6.67	7.37	10	800	1600	10.3	58.3
HSVD6P5AF1F	HSVD6P5CAF1F	KK	AK	6.5	7.22	7.98	10	500	1000	11.2	53.6
HSVD007AF1F	HSVD007CAF1F	KM	AM	7	7.78	8.6	10	200	400	12	50
HSVD7P5AF1F	HSVD7P5CAF1F	KP	AP	7.5	8.33	9.21	1	100	200	12.9	46.6
HSVD008AF1F	HSVD008CAF1F	KR	AR	8	8.89	9.83	1	50	100	13.6	44.2
HSVD8P5AF1F	HSVD8P5CAF1F	KT	AT	8.5	9.44	10.4	1	20	40	14.4	41.7
HSVD009AF1F	HSVD009CAF1F	KV	AV	9	10	11.1	1	10	20	15.4	39
HSVD010AF1F	HSVD010CAF1F	KX	AX	10	11.1	12.3	1	5	10	17	35.3
HSVD011AF1F	HSVD011CAF1F	KZ	AZ	11	12.2	13.5	1	1	1	18.2	33
HSVD012AF1F	HSVD012CAF1F	LE	BE	12	13.3	14.7	1	1	1	19.9	30.2
HSVD013AF1F	HSVD013CAF1F	LG	BG	13	14.4	15.9	1	1	1	21.5	28
HSVD014AF1F	HSVD014CAF1F	LK	BK	14	15.6	17.2	1	1	1	23.2	25.9
HSVD015AF1F	HSVD015CAF1F	LM	BM	15	16.7	18.5	1	1	1	24.4	24.6
HSVD016AF1F	HSVD016CAF1F	LP	BP	16	17.8	19.7	1	1	1	26	23.1
HSVD017AF1F	HSVD017CAF1F	LR	BR	17	18.9	20.9	1	1	1	27.6	21.8
HSVD018AF1F	HSVD018CAF1F	LT	BT	18	20	22.1	1	1	1	29.2	20.6
HSVD020AF1F	HSVD020CAF1F	LV	BV	20	22.2	24.5	1	1	1	32.4	18.6
HSVD022AF1F	HSVD022CAF1F	LX	BX	22	24.4	26.9	1	1	1	35.5	16.9
HSVD024AF1F	HSVD024CAF1F	LZ	BZ	24	26.7	29.5	1	1	1	38.9	15.5
HSVD026AF1F	HSVD026CAF1F	ME	CE	26	28.9	31.9	1	1	1	42.1	14.3
HSVD028AF1F	HSVD028CAF1F	MG	CG	28	31.1	34.4	1	1	1	45.4	13.3
HSVD030AF1F	HSVD030CAF1F	MK	CK	30	33.3	36.8	1	1	1	48.4	12.4
HSVD033AF1F	HSVD033CAF1F	MM	CM	33	36.7	40.6	1	1	1	53.3	11.3
HSVD036AF1F	HSVD036CAF1F	MP	CP	36	40	44.2	1	1	1	58.1	10.4
HSVD040AF1F	HSVD040CAF1F	MR	CR	40	44.4	49.1	1	1	1	64.5	9.3
HSVD043AF1F	HSVD043CAF1F	MT	CT	43	47.8	52.8	1	1	1	69.4	8.7

- Notes: 1. Suffix 'A' denotes 5% tolerance device. Without 'A' denotes 10% tolerance device.  
2. Add suffix 'C' or 'CA' after part number to specify Bi-directional devices.  
3. For Bi-Directional devices having VR of 10 volts and under, the IR limit is double.

The curve graph is for reference only, can't be the basis for judgment(曲线图仅供参考)!

HSVD\*AF1F-7-99-00  
Rev. 1, 18-Mar-2019

Fig. 1 Pulse Derating Curve

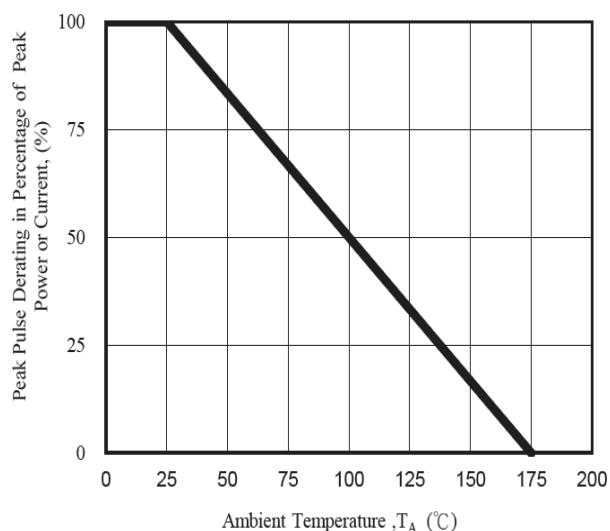


Fig. 4 Typical Junction Capacitance

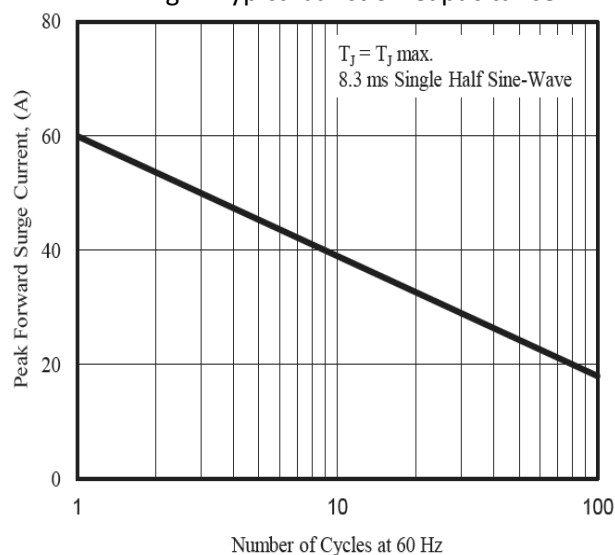


Fig. 2 Max. Non-Repetitive Surge Current

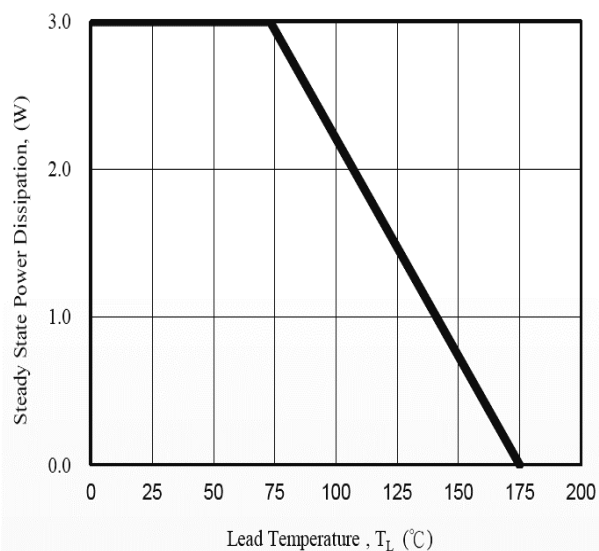


Fig. 4 Peak Pulse Power Rating Curve

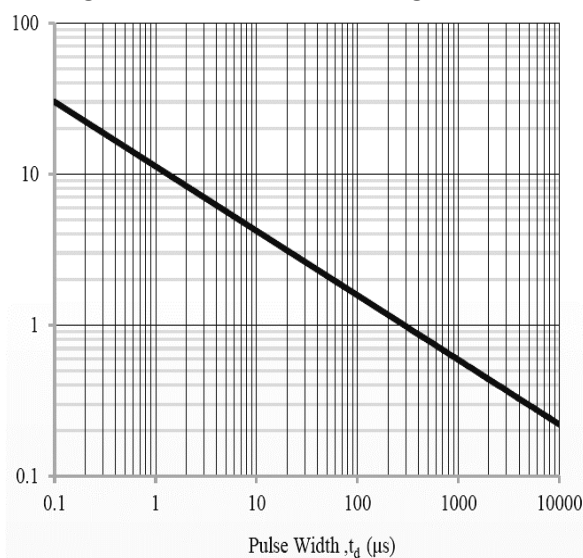


Fig. 5 Pulse Waveform

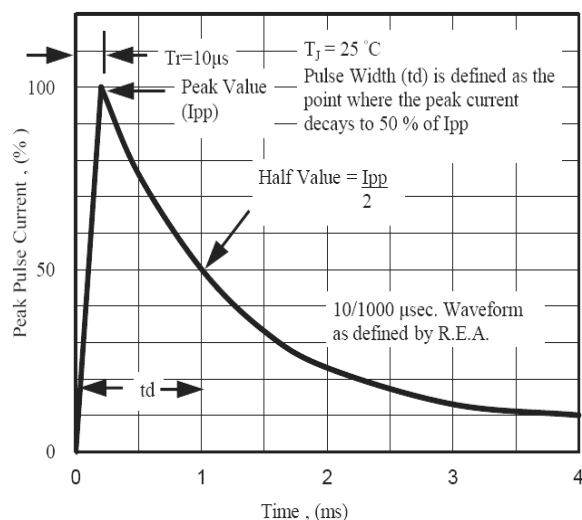
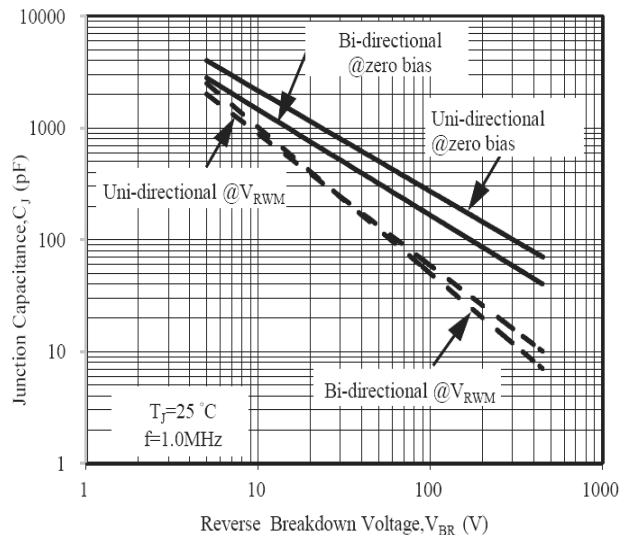


Fig. 6 Typical Junction Capacitance



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