



PRELIMINARY DATA

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

Designer's Data Sheet

FEATURES:

- 7.9-100 Volt Bidirectional
- Smaller than Microsemi 60KS200C Types
- Hermetically Sealed
- Meets all environmental requirements of MIL-S-19500
- Custom configurations available
- TX and TXV Screening Available

APPLICATIONS:

- Protection of Voltage Sensitive Components
- Protection Against Power Interruption
- Lightning Protection

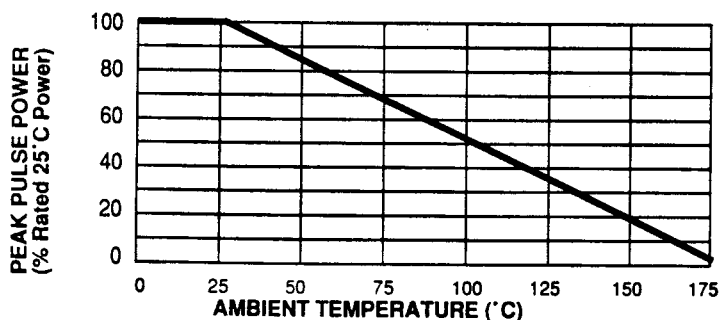
MAXIMUM RATINGS

CHARACTERISTICS	SYMBOL	VALUE	UNITS
Stand Off Voltage	V_{RWM}	5.6-75	V
Steady State Power Dissipation	P_d	400	W
Peak Pulse Power @ 1.0 msec	P_{PP}	60,000	W
Peak Pulse Power and Steady State Power Derating	See Graph		
Peak Pulse Power and Pulse Width	See Graph		
Operating and Storage Temperature	-65°C to +175°C		

NOTE:

SSDI's Transient Suppressors offer standard Breakdown Voltage Tolerances of $\pm 10\%$ (A) and $\pm 5\%$ (B). For other Voltages and Voltage Tolerances, contact SSDI's Marketing Department.

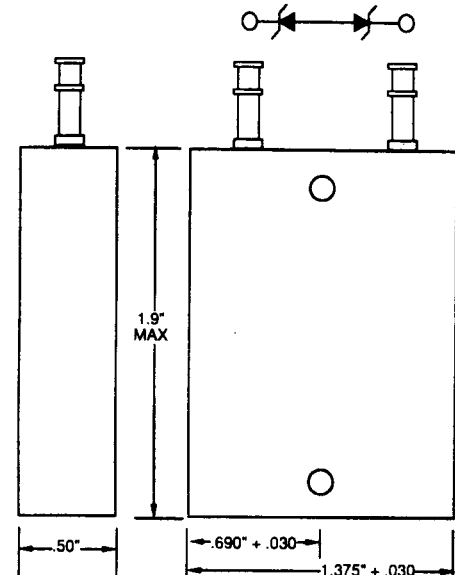
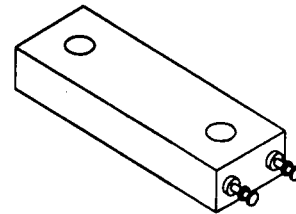
PEAK PULSE POWER VS. TEMPERATURE DERATING CURVE



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

STA60K7.9P thru STA60K100P

**60,000 WATTS
PEAK PULSE POWER
7.9 -100 VOLTS
LOW VOLTAGE
BIDIRECTIONAL TRANSIENT
VOLTAGE SUPPRESSOR**



Package shown is standard configuration. SSDI can custom design your module with terminals that meet your unique design criteria. Additionally, SSDI can package these devices with an irregular footprint or offset mounting positions. This data sheet is meant to serve as an example of SSDI's Transient Protection Module Capabilities. For custom configurations, please contact SSDI's Marketing

DATA SHEET #: T00008 B

RMD

STA60K7.9P thru STA60K100P

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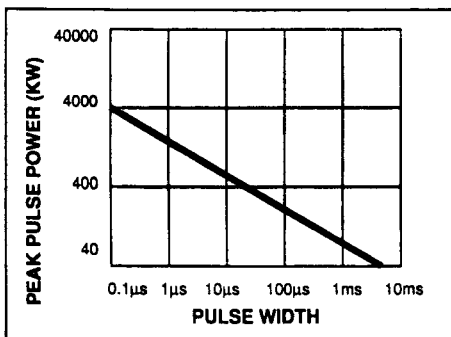
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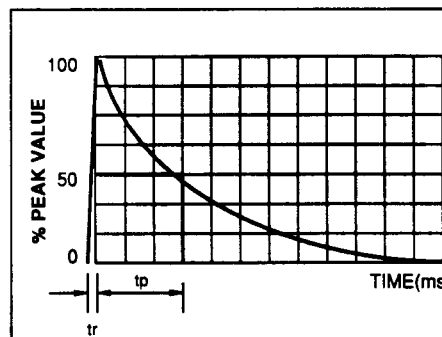
ELECTRICAL CHARACTERISTICS

PART NUMBER	BREAK DOWN (note 1)		MAX REVERSE STAND OFF		PEAK PULSE CLAMPING		MAXIMUM CONTINUOUS CURRENT (note 3)	DYNAMIC IMPEDANCE (note 3)	MAXIMUM TEMPERATURE COEFFICIENT
	Nominal Voltage	Test Current	Voltage	Reverse Leakage Current	Voltage (max.)	@ Current tp=1ms (note 4)			
	VBR	@IBRT	VRWM	IR @ VRWM	Vc	IPP	IRM	ZBR @ IBRT	TC @
For 5% Voltage Tolerance specify "B" in place of "A"	Volts	A	Volts	mA	Volts	A	A	mΩ	%/°C
STA60K7.9P	7.9	7.0	5.6	60	14.5	5120	31	28	.03
STA60K8.9P	8.9	6.0	6.2	48	15.0	4800	28	30	.03
STA60K9.8P	9.8	6.0	6.8	1.6	16.0	4360	25	33	.03
STA60K10.7P	10.7	5.0	7.5	0.8	17.5	4000	23	38	.05
STA60K11P	11.0	5.0	8.2	0.8	18.5	3720	21	43	.05
STA60K12.7P	12.7	4.0	9.1	0.8	19.5	3480	19	45	.05
STA60K13.5P	13.5	4.0	10	0.8	21.0	3160	17	48	.05
STA60K15P	15.0	3.0	11	0.8	23.0	2720	15	48	.05
STA60K16.7P	16.7	3.0	12	0.8	25.0	2560	13	48	.06
STA60K18P	18.0	2.6	13	0.8	27.0	2280	12	50	.06
STA60K20.2P	20.2	2.6	15	0.8	30.0	2080	11	63	.06
STA60K22.6P	22.6	2.0	16	0.8	33.5	1880	9.75	70	.06
STA60K24.5P	24.5	2.0	18	0.8	36.0	1720	9.0	75	.06
STA60K27.9P	27.9	2.0	20	0.8	40.0	1560	7.75	95	.06
STA60K30.5P	30.5	1.6	22	0.8	43.5	1400	7.0	125	.06
STA60K34P	34.0	1.6	24	0.8	47.0	1280	6.5	175	.06
STA60K36P	36.0	1.2	27	0.8	52.0	1200	6.0	200	.06
STA60K39P	39.0	1.2	30	0.8	55.0	1080	5.25	175	.06
STA60K45P	45.0	1.2	33	0.8	60.0	1000	4.5	250	.07
STA60K49P	49.0	1.0	36	0.8	65.0	920	4.3	300	.07
STA60K51P	51.0	1.0	39	0.8	70.0	840	4.25	350	.07
STA60K57P	57.0	0.8	43	0.8	78.0	760	4.0	450	.07
STA60K62P	62.0	0.8	47	0.8	87.0	680	3.75	500	.08
STA60K68P	68.0	0.8	51	0.8	93.0	640	3.25	550	.08
STA60K75P	75.0	0.8	56	0.8	103.3	560	3.0	625	.08
STA60K82P	82.0	0.6	62	0.8	113.5	520	2.75	750	.08
STA60K91P	91.0	0.6	68	0.8	126.5	480	2.5	1000	.08
STA60K100P	100.0	0.6	75	0.8	138.5	440	2.25	1125	.09

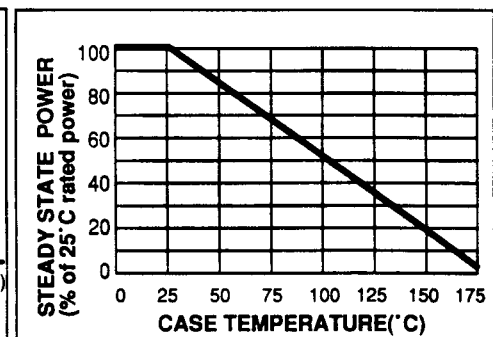
PEAK PULSE POWER VS. PULSE WIDTH



CURRENT PULSE WAVEFORM



STEADY STATE POWER DERATING



NOTES: For optional high reliability screening or higher nominal voltages, consult SSDI MARKETING Department.

- 1) All voltages are measured with an automated test set using a 35 msec test time. Longer or shorter test times will have a corresponding effect on the measured value due to heating effects.
- 2) Dynamic impedance is derived from the AC voltage divided by the AC current with RMS value of 10% of DC test current superimposed on the test current.
- 3) Ratings based on 25°C Case temperature.
- 4) Pulse width (tp) is defined as the time from rated peak pulse current IPP to the point where peak pulse current decayed to 50% of rated IPP. (10μs X 1000μs waveform as defined by R.E.A.)