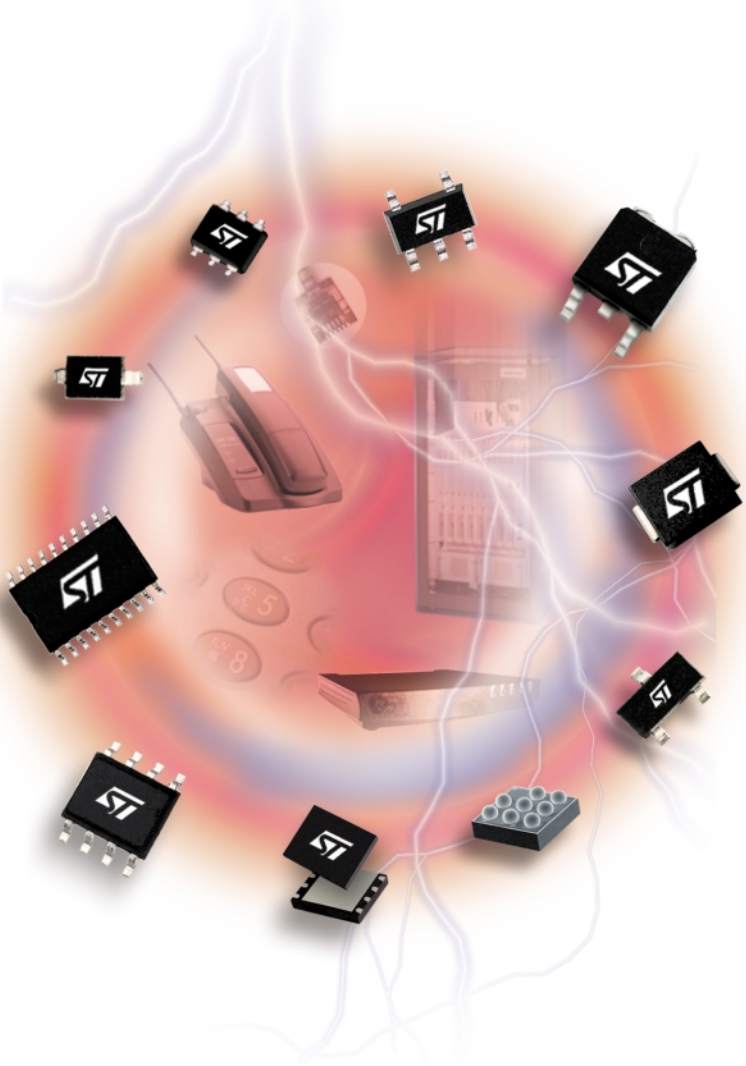


# Protection

The Immunity Of Your System



Reference Guide

STMicroelectronics  
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## TRANSIENT VOLTAGE SUPPRESSORS: 200W TRANSILS - STmite

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.		(V)	(mA)	(V)	(A)		
200	5	50	SM2T6V8A		6.4	10	9.2	19.6	25	STmite
200	12	1	SM2T14A		13.3	1	19.9	9.0	25	STmite
200	16	1	SM2T18A		17.1	1	26	7	25	STmite
200	24	1	SM2T27A		25.7	1	38.9	4.6	25	STmite

## TRANSIENT VOLTAGE SUPPRESSORS: 400W TRANSILS - AXIAL

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
400	5.8	1000	BZW04-5V8	BZW04-5V8B	6.45	10	10.5	38	30	DO-15
400	10.2	5	BZW04-10	BZW04-10B	11.4	1	16.7	24	30	DO-15
400	12.8	5	BZW04-13	BZW04-13B	14.3	1	21.2	19	30	DO-15
400	15.3	1	BZW04-15	BZW04-15B	17.1	1	25.2	16	30	DO-15
400	25.6	1	BZW04-26	BZW04-26B	28.5	1	41.5	9.6	30	DO-15
400	28.2	1	BZW04-28	BZW04-28B	31.4	1	45.7	8.8	30	DO-15
400	30.8	1	BZW04-31	BZW04-31B	34.2	1	49.9	8	30	DO-15
400	33.3	1	BZW04-33	BZW04-33B	37.1	1	53.9	7.4	30	DO-15
400	47.8	1	BZW04-48	BZW04-48B	53.2	1	77	5.2	30	DO-15
400	239	1	BZW04-239	BZW04-239B	266	1	384	1.5	30	DO-15
400	299	1	BZW04-299	BZW04-299B	332	1	482	0.9	30	DO-15
400	342	1	BZW04-342	BZW04-342B	380	1	548	0.9	30	DO-15
400	376	1	BZW04-376	BZW04-376B	418	1	603	0.8	30	DO-15

## TRANSIENT VOLTAGE SUPPRESSORS: 400W TRANSILS - SMA

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
400	5	800	SMAJ5.0A-TR	SMAJ5.0CA-TR	6.4	10	9.2	43.5	40	SMA
400	6	800	SMAJ6.0A-TR	SMAJ6.0CA-TR	6.7	10	103	38.8	40	SMA
400	6.5	500	SMAJ6.5A-TR	SMAJ6.5CA-TR	7.2	10	11.2	35.7	40	SMA
400	10	5	SMAJ10A-TR	SMAJ10CA-TR	11.1	1	17	23.5	40	SMA
400	12	5	SMAJ12A-TR	SMAJ12CA-TR	13.3	1	19.9	20.1	40	SMA
400	13	1	SMAJ13A-TR	SMAJ13CA-TR	14.4	1	21.5	18.6	40	SMA
400	15	1	SMAJ15A-TR	SMAJ15CA-TR	16.7	1	24.4	16.4	40	SMA
400	18	1	SMAJ18A-TR	SMAJ18CA-TR	20	1	29.2	13.7	40	SMA
400	22	1	SMAJ22A-TR	SMAJ22CA-TR	24.4	1	35.5	11.2	40	SMA
400	24	1	SMAJ24A-TR	SMAJ24CA-TR	26.7	1	38.9	10.3	40	SMA
400	26	1	SMAJ26A-TR	SMAJ26CA-TR	28.9	1	42.1	9.5	40	SMA
400	28	1	SMAJ28A-TR	SMAJ28CA-TR	31.1	1	45.4	8.8	40	SMA
400	30	1	SMAJ30A-TR	SMAJ30CA-TR	33.3	1	48.4	8.3	40	SMA
400	33	1	SMAJ33A-TR	SMAJ33CA-TR	36.7	1	53.3	7.5	40	SMA
400	40	1	SMAJ40A-TR	SMAJ40CA-TR	44.4	1	64.5	6.2	40	SMA
400	43	1	SMAJ43A-TR	SMAJ43CA-TR	47.8	1	69.7	5.7	40	SMA
400	48	1	SMAJ48A-TR	SMAJ48CA-TR	53.3	1	77.4	5.2	40	SMA
400	58	1	SMAJ58A-TR	SMAJ58CA-TR	64.4	1	93.6	4.3	40	SMA
400	70	1	SMAJ70A-TR	SMAJ70CA-TR	77.8	1	113	3.5	40	SMA
400	85	1	SMAJ85A-TR	SMAJ85CA-TR	94.4	1	137	2.9	40	SMA
400	130	1	SMAJ130A-TR	SMAJ130CA-TR	144	1	209	1.9	40	SMA
400	170	1	SMAJ170A-TR	SMAJ170CA-TR	189	1	275	1.4	40	SMA
400	188	1	SMAJ188A-TR	SMAJ188CA-TR	209	1	328	1.4	40	SMA

\* 10/1000μs waveform

New products in red characters

## TRANSIENT VOLTAGE SUPPRESSORS: 600W TRANSILS - AXIAL

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
600	5.8	1000	BZW06-5V8	BZW06-5V8B	6.45	10	10.5	57	100	DO-15
600	6.4	500	BZW06-6V4	BZW06-6V4B	7.13	10	11.3	53	100	DO-15
600	10.2	5	BZW06-10	BZW06-10B	11.4	1	16.7	36	100	DO-15
600	12.8	5	BZW06-13	BZW06-13B	14.3	1	21.2	28	100	DO-15
600	13.6	5	BZW06-14	BZW06-14B	15.2	1	22.5	27	100	DO-15
600	15.3	1	BZW06-15	BZW06-15B	17.1	1	25.2	24	100	DO-15
600	18.8	1	BZW06-19	BZW06-19B	20.9	1	30.6	20	100	DO-15
600	23.1	1	BZW06-23	BZW06-23B	25.7	1	37.5	16	100	DO-15
600	25.6	1	BZW06-26	BZW06-26B	28.5	1	41.5	14.5	100	DO-15
600	28.2	1	BZW06-28	BZW06-28B	31.4	1	45.7	13.1	100	DO-15
600	30.8	1	BZW06-31	BZW06-31B	34.2	1	49.9	12	100	DO-15
600	33.3	1	BZW06-33	BZW06-33B	37.1	1	53.9	11.1	100	DO-15
600	47.8	1	BZW06-48	BZW06-48B	53.2	1	77	7.8	100	DO-15
600	273	1	BZW06-273	BZW06-273B	304	1	438	1.6	100	DO-15
600	342	1	BZW06-342	BZW06-342B	380	1	548	1.3	100	DO-15
600	376	1	BZW06-376	BZW06-376B	418	1	603	1.3	100	DO-15

## TRANSIENT VOLTAGE SUPPRESSORS: 600W TRANSILS - AXIAL

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
600	5.8	1000	P6KE6V8A	P6KE6V8CA	6.45	10	10.5	57	100	DO-15
600	6.4	500	P6KE7V5A	P6KE7V5CA	7.13	10	11.3	53	100	DO-15
600	12.8	1	P6KE15A	P6KE15CA	14.3	1	21.2	28	100	DO-15
600	15.3	1	P6KE18A	P6KE18CA	17.1	1	25.2	24	100	DO-15
600	23.1	1	P6KE27A	P6KE27CA	25.7	1	37.5	16	100	DO-15
600	25.6	1	P6KE30A	P6KE30CA	28.5	1	41.5	14.5	100	DO-15
600	28.2	1	P6KE33A	P6KE33CA	31.4	1	45.7	13.1	100	DO-15
600	30.8	1	P6KE36A	P6KE36CA	34.2	1	49.9	12	100	DO-15
600	33.3	1	P6KE39A	P6KE39CA	37.1	1	53.9	11.1	100	DO-15
600	47.8	1	P6KE56A	P6KE56CA	53.2	1	77	7.8	100	DO-15
600	58.1	1	P6KE68A	P6KE68CA	64.6	1	92	6.5	100	DO-15
600	70.1	1	P6KE82A	P6KE82CA	77.9	1	113	5.3	100	DO-15
600	171	1	P6KE200A	P6KE200CA	190	1	274	2.2	100	DO-15
600	213	1	P6KE250A	P6KE250CA	237	1	344	2	100	DO-15
600	256	1	P6KE300A	P6KE300CA	285	1	414	1.6	100	DO-15
600	342	1	P6KE400A	P6KE400CA	380	1	548	1.3	100	DO-15
600	376	1	P6KE440A	P6KE440CA	418	1	603	1.3	100	DO-15

## TRANSIENT VOLTAGE SUPPRESSORS: HIGH TEMPERATURE 600W TRANSILS - SMB

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.		(V)	(mA)	(V)	(A)		
600	20.5	2	SM6HT24A		22.8	1	33.2	18	75	SMB
600	23.1	2	SM6HT27A		25.7	1	37.5	16	75	SMB
600	25.6	2	SM6HT30A		28.5	1	41.5	14.5	75	SMB
600	30.8	2	SM6HT36A		34.2	1	49.9	12	75	SMB
600	33.3	2	SM6HT39A		37.1	1	53.9	11.1	75	SMB
600	36.8	2	SM6HT43A		40.9	1	59.3	10.1	75	SMB

\* 10/1000μs waveform

## TRANSIENT VOLTAGE SUPPRESSORS: 600W TRANSILS - SMB

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
600	5.8	1000	SM6T6V8A	SM6T6V8CA	6.45	10	10.5	57	100	SMB
600	6.4	500	SM6T7V5A	SM6T7V5CA	7.13	10	11.3	53	100	SMB
600	8.55	10	SM6T10A	SM6T10CA	9.5	1	14.5	41	100	SMB
600	10.2	5	SM6T12A	SM6T12CA	11.4	1	16.7	36	100	SMB
600	12.8	5	SM6T15A	SM6T15CA	14.3	1	21.2	28	100	SMB
600	15.3	5	SM6T18A	SM6T18CA	17.1	1	25.2	24	100	SMB
600	18.8	5	SM6T22A	SM6T22CA	20.9	1	30.6	20	100	SMB
600	20.5	5	SM6T24A	SM6T24CA	22.8	1	33.2	18	100	SMB
600	23.1	5	SM6T27A	SM6T27CA	25.7	1	37.5	16	100	SMB
600	25.6	5	SM6T30A	SM6T30CA	28.5	1	41.5	14.5	100	SMB
600	28.2	5	SM6T33A	SM6T33CA	31.4	1	45.7	13.1	100	SMB
600	30.8	5	SM6T36A	SM6T36CA	34.2	1	49.9	12	100	SMB
600	33.3	5	SM6T39A	SM6T39CA	37.1	1	53.9	11.1	100	SMB
600	58.1	5	SM6T68A	SM6T68CA	64.6	1	92	6.5	100	SMB
600	85.5	5	SM6T100A	SM6T100CA	95	1	137	4.4	100	SMB
600	128	5	SM6T150A	SM6T150CA	143	1	207	2.9	100	SMB
600	171	5	SM6T200A	SM6T200CA	190	1	274	2.2	100	SMB
600	188	5	SM6T220A	SM6T220CA	209	1	328	2	100	SMB

## TRANSIENT VOLTAGE SUPPRESSORS: 600W TRANSILS - SMB

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
600	5	800	SMBJ5.0A-TR	SMBJ5.0CA-TR	6.4	10	9.2	68	100	SMB
600	6	800	SMBJ6.0A-TR	SMBJ6.0CA-TR	6.7	10	10.3	61	100	SMB
600	6.5	500	SMBJ6.5A-TR	SMBJ6.5CA-TR	7.2	10	11.2	56	100	SMB
600	10	5	SMBJ10A-TR	SMBJ10CA-TR	11.1	1	17	37	100	SMB
600	12	5	SMBJ12A-TR	SMBJ12CA-TR	13.3	1	19.9	31	100	SMB
600	13	1	SMBJ13A-TR	SMBJ13CA-TR	14.4	1	21.5	29	100	SMB
600	15	1	SMBJ15A-TR	SMBJ15CA-TR	16.7	1	24.4	25.1	100	SMB
600	18	1	SMBJ18A-TR	SMBJ18CA-TR	20	1	29.2	21.5	100	SMB
600	22	1	SMBJ22A-TR	SMBJ22CA-TR	24.4	1	35.5	17.7	100	SMB
600	24	1	SMBJ24A-TR	SMBJ24CA-TR	26.7	1	38.9	16	100	SMB
600	26	1	SMBJ26A-TR	SMBJ26CA-TR	28.9	1	42.1	14.9	100	SMB
600	28	1	SMBJ28A-TR	SMBJ28CA-TR	31.1	1	45.4	13.8	100	SMB
600	30	1	SMBJ30A-TR	SMBJ30CA-TR	33.3	1	48.4	13	100	SMB
600	33	1	SMBJ33A-TR	SMBJ33CA-TR	36.7	1	53.3	11.8	100	SMB
600	40	1	SMBJ40A-TR	SMBJ40CA-TR	44.4	1	64.5	9.7	100	SMB
600	48	1	SMBJ48A-TR	SMBJ48CA-TR	53.3	1	77.4	8.1	100	SMB
600	58	1	SMBJ58A-TR	SMBJ58CA-TR	64.4	1	93.6	6.7	100	SMB
600	70	1	SMBJ70A-TR	SMBJ70CA-TR	77.8	1	113	5.5	100	SMB
600	85	1	SMBJ85A-TR	SMBJ85CA-TR	94.4	1	137	4.6	100	SMB
600	130	1	SMBJ130A-TR	SMBJ130CA-TR	144	1	209	3	100	SMB
600	170	1	SMBJ170A-TR	SMBJ170CA-TR	189	1	275	2.2	100	SMB
600	188	1	SMBJ188A-TR	SMBJ188CA-TR	209	1	328	2	100	SMB

## TRANSIENT VOLTAGE SUPPRESSORS: DIGITAL PURPOSE 600W TRANSILS - SMB

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.		(V)	(mA)	(V)	(A)		
600	3.3	200	SMLVT3V3		4.1	1	7.3	50	50	SMB
600	12	1	SMBJ12AVCL		13.2	1	15.8	17.5	50	SMB

\* 10/1000μs waveform

## TRANSIENT VOLTAGE SUPPRESSORS: 1500W TRANSILS - AXIAL

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
1500	5	300	1N5908	-	6	1	7.6	30	200	DO-201
1500	5.8	1000	1.5KE6V8A	1.5KE6V8CA	6.45	10	10.5	143	200	DO-201
1500	6.4	500	1.5KE7V5A	1.5KE7V5CA	7.13	10	11.3	132	200	DO-201
1500	10.2	5	1.5KE12A	1.5KE12CA	11.4	1	16.7	90	200	DO-201
1500	12.8	1	1.5KE15A	1.5KE15CA	14.3	1	21.2	71	200	DO-201
1500	15.3	1	1.5KE18A	1.5KE18CA	17.1	1	25.2	59.5	200	DO-201
1500	18.8	1	1.5KE22A	1.5KE22CA	20.9	1	30.6	49	200	DO-201
1500	20.5	1	1.5KE24A	1.5KE24CA	22.8	1	33.2	45	200	DO-201
1500	25.6	1	1.5KE30A	1.5KE30CA	28.5	1	41.5	36	200	DO-201
1500	28.2	1	1.5KE33A	1.5KE33CA	31.4	1	45.7	33	200	DO-201
1500	30.8	1	1.5KE36A	1.5KE36CA	34.2	1	49.9	30	200	DO-201
1500	33.3	1	1.5KE39A	1.5KE39CA	37.1	1	53.9	28	200	DO-201
1500	40.2	1	1.5KE47A	1.5KE47CA	44.7	1	64.3	23.2	200	DO-201
1500	47.8	1	1.5KE56A	1.5KE56CA	53.2	1	77	19.5	200	DO-201
1500	53	1	1.5KE62A	1.5KE62CA	58.9	1	85	17.7	200	DO-201
1500	58.1	1	1.5KE68A	1.5KE68CA	64.6	1	92	16.3	200	DO-201
1500	70.1	1	1.5KE82A	1.5KE82CA	77.9	1	113	13.3	200	DO-201
1500	85.5	1	1.5KE100A	1.5KE100CA	95	1	137	11	200	DO-201
1500	154	1	1.5KE180A	1.5KE180CA	171	1	246	6.1	200	DO-201
1500	171	1	1.5KE200A	1.5KE200CA	190	1	274	5.5	200	DO-201
1500	188	1	1.5KE220A	1.5KE220CA	209	1	328	4.6	200	DO-201
1500	213	1	1.5KE250A	1.5KE250CA	237	1	344	5	200	DO-201
1500	256	1	1.5KE300A	1.5KE300CA	285	1	414	5	200	DO-201
1500	299	1	1.5KE350A	1.5KE350CA	332	1	482	4	200	DO-201
1500	342	1	1.5KE400A	1.5KE400CA	380	1	548	4	200	DO-201
1500	376	1	1.5KE440A	1.5KE440CA	418	1	603	3.5	200	DO-201

## TRANSIENT VOLTAGE SUPPRESSORS: 1500W TRANSILS - SMC

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
1500	5	300	SM5908	-	6	1	7.6	30	200	SMC
1500	5.8	1000	SM15T6V8A	SM15T6V8CA	6.45	10	10.5	143	200	SMC
1500	6.4	500	SM15T7V5A	SM15T7V5CA	7.13	10	11.3	132	200	SMC
1500	8.55	10	SM15T10A	SM15T10CA	9.5	1	14.5	103	200	SMC
1500	10.2	5	SM15T12A	SM15T12CA	11.4	1	16.7	90	200	SMC
1500	12.8	5	SM15T15A	SM15T15CA	14.3	1	21.2	71	200	SMC
1500	15.3	5	SM15T18A	SM15T18CA	17.1	1	25.2	59.5	200	SMC
1500	18.8	5	SM15T22A	SM15T22CA	20.9	1	30.6	49	200	SMC
1500	20.5	5	SM15T24A	SM15T24CA	22.8	1	33.2	45	200	SMC
1500	23.1	5	SM15T27A	SM15T27CA	25.7	1	37.5	40	200	SMC
1500	25.6	5	SM15T30A	SM15T30CA	28.5	1	41.5	36	200	SMC
1500	28.2	5	SM15T33A	SM15T33CA	31.4	1	45.7	33	200	SMC
1500	30.8	5	SM15T36A	SM15T36CA	34.2	1	49.9	30	200	SMC
1500	33.3	5	SM15T39A	SM15T39CA	37.1	1	53.9	28	200	SMC
1500	58.1	5	SM15T68A	SM15T68CA	64.6	1	92	16.3	200	SMC
1500	85.5	5	SM15T100A	SM15T100CA	95	1	137	11	200	SMC
1500	128	5	SM15T150A	SM15T150CA	143	1	207	7.2	200	SMC
1500	171	5	SM15T200A	SM15T200CA	190	1	274	5.5	200	SMC
1500	188	5	SM15T220A	SM15T220CA	209	1	328	4.6	200	SMC

\* 10/1000μs waveform

## TRANSIENT VOLTAGE SUPPRESSORS: 1500W TRANSILS - SMC

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (µA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
1500	5	800	SMCJ5.0A-TR	SMCJ5.0CA-TR	6.4	10	9.2	171	200	SMC
1500	6	800	SMCJ6.0A-TR	SMCJ6.0CA-TR	6.7	10	10.3	152	200	SMC
1500	6.5	500	SMCJ6.5A-TR	SMCJ6.5CA-TR	7.2	10	11.2	140	200	SMC
1500	10	5	SMCJ10A-TR	SMCJ10CA-TR	11.1	1	17	92	200	SMC
1500	12	5	SMCJ12A-TR	SMCJ12CA-TR	13.3	1	19.9	79	200	SMC
1500	13	1	SMCJ13A-TR	SMCJ13CA-TR	14.4	1	21.5	73	200	SMC
1500	15	1	SMCJ15A-TR	SMCJ15CA-TR	16.7	1	24.4	64	200	SMC
1500	18	1	SMCJ18A-TR	SMCJ18CA-TR	20	1	29.2	53	200	SMC
1500	22	1	SMCJ22A-TR	SMCJ22CA-TR	24.4	1	35.5	44	200	SMC
1500	24	1	SMCJ24A-TR	SMCJ24CA-TR	26.7	1	38.9	40	200	SMC
1500	26	1	SMCJ26A-TR	SMCJ26CA-TR	28.9	1	42.1	37	200	SMC
1500	28	1	SMCJ28A-TR	SMCJ28CA-TR	31.1	1	45.4	34	200	SMC
1500	30	1	SMCJ30A-TR	SMCJ30CA-TR	33.3	1	48.4	32	200	SMC
1500	33	1	SMCJ33A-TR	SMCJ33CA-TR	36.7	1	53.3	29	200	SMC
1500	40	1	SMCJ40A-TR	SMCJ40CA-TR	44.4	1	64.5	24	200	SMC
1500	48	1	SMCJ48A-TR	SMCJ48CA-TR	53.3	1	77.4	20	200	SMC
1500	58	1	SMCJ58A-TR	SMCJ58CA-TR	64.4	1	93.6	16	200	SMC
1500	70	1	SMCJ70A-TR	SMCJ70CA-TR	77.8	1	113	13.9	200	SMC
1500	85	1	SMCJ85A-TR	SMCJ85CA-TR	94.4	1	137	11.5	200	SMC
1500	130	1	SMCJ130A-TR	SMCJ130CA-TR	144	1	209	7.5	200	SMC
1500	170	1	SMCJ170A-TR	SMCJ170CA-TR	189	1	275	5.7	200	SMC
1500	188	1	SMCJ188A-TR	SMCJ188CA-TR	209	1	328	4.6	200	SMC

## TRANSIENT VOLTAGE SUPPRESSORS: 5000W TRANSILS - AXIAL

Power* (W)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (µA)	P / N		V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>CL</sub> max @ I <sub>PP</sub>		I <sub>FSM</sub> (A)	Package
			Unidirect.	Bidirect.	(V)	(mA)	(V)	(A)		
5000	10	5	BZW50-10	BZW50-10B	11.1	1	18.8	266	500	R6
5000	15	5	BZW50-15	BZW50-15B	16.6	1	26.9	186	500	R6
5000	22	5	BZW50-22	BZW50-22B	24.4	1	39.4	127	500	R6
5000	27	5	BZW50-27	BZW50-27B	30	1	48.3	103	500	R6
5000	33	5	BZW50-33	BZW50-33B	36.6	1	59	85	500	R6
5000	39	5	BZW50-39	BZW50-39B	43.3	1	69.4	72	500	R6
5000	56	5	BZW50-56	BZW50-56B	62.2	1	99.6	50	500	R6
5000	68	5	BZW50-68	BZW50-68B	75.6	1	121	41	500	R6
5000	82	5	BZW50-82	BZW50-82B	91	1	145	34	500	R6
5000	100	5	BZW50-100	BZW50-100B	111	1	179	28	500	R6
5000	150	5	BZW50-150	BZW50-150B	166	1	269	19	500	R6
5000	180	5	BZW50-180	BZW50-180B	200	1	322	16	500	R6

## TRANSIENT VOLTAGE SUPPRESSOR FOR AUTOMOTIVE: TRANSIL - AXIAL

P / N	V <sub>RM</sub> (V)	I <sub>RM</sub> max T <sub>C</sub> = 25°C (µA)	I <sub>RM</sub> max T <sub>C</sub> = 85°C (µA)	V <sub>BR</sub> min T <sub>C</sub> = 25°C (V)	V <sub>BR</sub> max T <sub>C</sub> = 25°C (V)	I <sub>R</sub> T <sub>C</sub> = 25°C (mA)	V <sub>CL</sub> max T <sub>C</sub> = 25°C (V)	I <sub>PP</sub> T <sub>C</sub> = 25°C (A)	C typ (nF)	Package
LDP24A	24	50	300	25	32	1	38	30	8	R6

\* 10/100µs waveform

## SURGE SUPPRESSORS FOR TELECOM INTRABUILDING & TERMINALS: TRISILS- SMA

I <sub>pp</sub> max * (A)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>R</sub> @ I <sub>R</sub>		V <sub>BO</sub> max @ I <sub>BO</sub>		I <sub>H</sub> min (mA)	C typ @ V <sub>R</sub> =2V (pF)	Package
				(V)	(μA)	(V)	(mA)			
30	56	2	SMP30-62	62	50	82	800	150	40	SMA
30	61	2	SMP30-68	68	50	90	800	150	40	SMA
30	90	2	SMP30-100	100	50	133	800	150	35	SMA
30	108	2	SMP30-120	120	50	160	800	150	30	SMA
30	117	2	SMP30-130	130	50	173	800	150	30	SMA
30	162	2	SMP30-180	180	50	240	800	150	25	SMA
30	180	2	SMP30-200	200	50	267	800	150	25	SMA
30	198	2	SMP30-220	220	50	293	800	150	25	SMA
30	216	2	SMP30-240	240	50	320	800	150	25	SMA
30	243	2	SMP30-270	270	50	360	800	150	25	SMA

## SURGE SUPPRESSORS FOR TELECOM TERMINALS: TRISILS - SMA

I <sub>pp</sub> max * (A)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>R</sub> @ I <sub>R</sub>		V <sub>BO</sub> max @ I <sub>BO</sub>		I <sub>H</sub> min (mA)	C typ @ V <sub>R</sub> =2V (pF)	Package
				(V)	(μA)	(V)	(mA)			
30	56	2	SMP50-62	62	50	82	800	150	50	SMA
30	61	2	SMP50-68	68	50	90	800	150	45	SMA
30	90	2	SMP50-100	100	50	133	800	150	40	SMA
30	108	2	SMP50-120	120	50	160	800	150	40	SMA
30	117	2	SMP50-130	130	50	173	800	150	35	SMA
30	162	2	SMP50-180	180	50	240	800	150	30	SMA
30	180	2	SMP50-200	200	50	267	800	150	30	SMA
30	198	2	SMP50-220	220	50	293	800	150	30	SMA
30	216	2	SMP50-240	240	50	320	800	150	30	SMA
30	243	2	SMP50-270	270	50	360	800	150	30	SMA

## SURGE SUPPRESSORS FOR TELECOM TERMINALS: TRISILS - SMB

I <sub>pp</sub> max * (A)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>R</sub> @ I <sub>R</sub>		V <sub>BO</sub> max @ I <sub>BO</sub>		I <sub>H</sub> min (mA)	C typ @ V <sub>R</sub> =2V (pF)	Package
				(V)	(μA)	(V)	(mA)			
50	56	2	SMTPA62	62	50	82	800	150	50	SMB
50	61	2	SMTPA68	68	50	90	800	150	45	SMB
50	90	2	SMTPA100	100	50	133	800	150	40	SMB
50	108	2	SMTPA120	120	50	160	800	150	40	SMB
50	117	2	SMTPA130	130	50	173	800	150	35	SMB
50	162	2	SMTPA180	180	50	240	800	150	30	SMB
50	180	2	SMTPA200	200	50	267	800	150	30	SMB
50	198	2	SMTPA220	220	50	293	800	150	30	SMB
50	216	2	SMTPA240	240	50	320	800	150	30	SMB
50	243	2	SMTPA270	270	50	360	800	150	30	SMB

## SURGE SUPPRESSORS FOR TELECOM TERMINALS: TRISILS - AXIAL

I <sub>pp</sub> max * (A)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>R</sub> @ I <sub>R</sub>		V <sub>BO</sub> max @ I <sub>BO</sub>		I <sub>H</sub> min (mA)	C typ @ V <sub>R</sub> =2V (pF)	Package
				(V)	(μA)	(V)	(mA)			
50	56	2	TPA62	62	50	82	800	150	50	DO-15
50	90	2	TPA100	100	50	133	800	150	40	DO-15
50	108	2	TPA120	120	50	160	800	150	40	DO-15
50	117	2	TPA130	130	50	173	800	150	35	DO-15
50	162	2	TPA180	180	50	240	800	150	30	DO-15

\* 10/1000μs waveform

New products in red characters

I <sub>pp</sub> max * (A)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>R</sub> @ I <sub>R</sub>		V <sub>BO</sub> max @ I <sub>BO</sub>		I <sub>H</sub> min (mA)	C typ @ V <sub>R</sub> =2V (pF)	Package
				(V)	(μA)	(V)	(mA)			
50	180	2	TPA200	200	50	267	800	150	30	DO-15
50	198	2	TPA220	220	50	293	800	150	30	DO-15
50	216	2	TPA240	240	50	320	800	150	30	DO-15
50	243	2	TPA270	270	50	360	800	150	30	DO-15

## SURGE SUPPRESSORS FOR TELECOM EQUIPMENT: TRISILS - SMB

I <sub>pp</sub> max * (A)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>R</sub> @ I <sub>R</sub>		V <sub>BO</sub> max @ I <sub>BO</sub>		I <sub>H</sub> min (mA)	C typ @ V <sub>R</sub> =2V (pF)	Package
				(V)	(μA)	(V)	(mA)			
100	6	2	SMP100LC-8	8	50	25	800	50	75	SMB
100	22	2	SMP100LC-25	25	50	40	800	150	65	SMB
100	32	2	SMP100LC-35	35	50	55	800	150	55	SMB
100	55	2	SMP100LC-65	65	50	85	800	150	90	SMB
100	81	2	SMP100LC-90	90	50	120	800	150	80	SMB
100	108	2	SMP100LC-120	120	50	160	800	150	75	SMB
100	120	2	SMP100LC-140	140	50	190	800	150	65	SMB
100	144	2	SMP100LC-160	160	50	220	800	150	65	SMB
100	170	2	SMP100LC-200	200	50	275	800	150	60	SMB
100	200	2	SMP100LC-230	230	50	320	800	150	60	SMB
100	230	2	SMP100LC-270	262	50	370	800	150	60	SMB
200	230	2	SMP200LC-270 **	270	50	370	800	50	80	SMB

\* 10/1000μs waveform \*\* Available in Q1-03

# DATA PROTECTION

## DATA PROTECTION: ESD<sup>▼</sup> UNIDIRECTIONAL SUPPRESSORS

Number of lines	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>BR</sub> min @ I <sub>R</sub>		R <sub>D</sub> typ (mΩ)	C typ @ 0Vbias (pF)	Package
				(V)	(mA)			
2	12	5	ESDA14V2L	14.2	1	650	90	SOT-23
2	24	1	ESDA25L	25	1	1000	50	SOT-23
2	24	1	ESDA25W	25	1	1100	65	SOT323-3L
2	3	2	ESDA5V3L	5.3	1	280	220	SOT-23
2	5.25	20	ESDA6V1L	6.1	1	350	140	SOT-23
4	12	5	ESDA14V2SC5	14.2	1	650	100	SOT23-5L
4	12	5	ESDA14V2SC6	14.2	1	650	100	SOT23-6L
4	14	0.075	ESDA17SC6	17	1	700	85	SOT23-6L
4	15	0.1	ESDA19SC6	19	1	800	80	SOT23-6L
4	24	1	ESDA25SC6	25	1	1000	60	SOT23-6L
4	24	1	ESDA25W5	25	1	1900	30	SOT323-3L
4	3	2	ESDA5V3SC5	5.3	1	230	280	SOT23-5L
4	3	2	ESDA5V3SC6	5.3	1	230	280	SOT23-6L
4	5	10	ESDA6V1-4F1	6.1	1	350	250 (max)	Flip-Chip
4	3	0.5	ESDA6V1P6	6.1	1	1500	70	SOT-666
4	5.25	20	ESDA6V1SC5	6.1	1	350	190	SOT23-5L
4	5.25	20	ESDA6V1SC6	6.1	1	350	190	SOT23-6L
4	3	1	ESDA6V1W5	6.1	1	350	90	SOT323-5L
4	3	0.5	ESDALC6V1P6	6.1	1	1500	12	SOT-666
4	3	1	ESDALC6V1W5	6.1	1	1100	9.5	SOT323-5L
5	3	0.5	ESDA6V1-5P6	6.1	1	1500	70	SOT-666
5	14	0.075	ESDA17-5SC6	17	1	1000	35	SOT23-6L
5	15	0.1	ESDA19-5SC6	19	1	1000	35	SOT23-6L
5	3	1	ESDA6V1-5W6	6.1	1	610	50	SOT323-6L
6	5	2	ESDA6V1U1	6.1	1	500	100	SO-8
18	5	2	ESDA6V1S3	6.1	1	500	120	SO20
18	5.25	2	ESDA6V2S6	6.2	1	500	100	SSOP20

▼ Electrostatic discharges

New products in red characters



## DATA PROTECTION: ESD<sup>▽</sup> BIDIRECTIONAL SUPPRESSORS

Number of lines	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>BR</sub> min @ I <sub>R</sub>		R <sub>D</sub> typ (mΩ)	C typ @ 0Vbias (pF)	Package
				(V)	(mA)			
4	12	1	ESDA14V2-4BF1	14.2	1	3200	15 (max)	Flip-Chip
4	12	1	ESDA14V2-BP6	14.2	1	1500	20	SOT-666
4	3	1	ESDA6V1-4BF1	6.1	1	1100	35	Flip-Chip
4	3	1	ESDA6V1-4BC6	6.1	1	530	40	SOT23-6L
6	24	2	ESDA25B1	25	1	1500	15	SO-8
18	24	2	ESDA25DB3	25	1	500	50	SO-20

▽ Electrostatic discharges

## DATA PROTECTION: USB PORT PROTECTION

Array Function	P / N	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	V <sub>BR</sub> min @ I <sub>R</sub>		C typ (pF)	Package
				(V)	(mA)		
USB 1.1 port protection	USB6B1	5.25	10	6	1	15	SO-8

## RAIL-TO-RAIL PROTECTION FOR xDSL, MODEM AND ETHERNET

Array Function	P / N	V <sub>RRM</sub> (V)	I <sub>R</sub> max @ 15V (μA)	C max @ 5V (pF)	V <sub>F</sub> max @ 50mA (V)	IEC61000-4-2 Std level	HBM Mil Std 883E class	Package
Rail-to-rail 4-line	DA108S1RL	18	2	35	1.2	4	3	SO-8
Rail-to-rail 6-line	DA112S1RL	18	2	35	1.2	4	3	SO-8
R.-to-r. 6-line Low Capa.	DALC112S1	18	2	7	1.3	3	3	SO-8
R.-to-r. 6-line Low Capa.	DALC112S1RL	18	2	7	1.3	3	3	SO-8
R.-to-r. 4-line Low Capa.	DALC208SC6	9	1	7	1.2	4	3	SOT23 - 6L

# PROTECTION ICs

## FIXED VOLTAGE PROTECTION FOR TELECOM RELAY

I <sub>pp</sub> max* (A)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>R</sub> min @ I <sub>R</sub>		V <sub>BO</sub> max @ I <sub>BO</sub>		I <sub>H</sub> min (mA)	Package
				(V)	(μA)	(V)	(mA)		
30	180	5	THBT20011D	200	50	290	400	150	SO-8
30	240	5	THBT27011D	270	50	380	400	150	SO-8
100	120	5	TLP140G	140	50	200	500	150	D <sup>2</sup> PAK
100	120	5	TLP140G-1	140	50	200	500	150	I <sup>2</sup> PAK
100	180	5	TLP200G	200	50	290	500	150	D <sup>2</sup> PAK
100	180	5	TLP200G-1	200	50	290	500	150	I <sup>2</sup> PAK
100	230	5	TLP270G	270	50	400	500	150	D <sup>2</sup> PAK
100	230	5	TLP270G-1	270	50	400	500	150	I <sup>2</sup> PAK

## FIXED VOLTAGE PROTECTION FOR TELECOM SOLID STATE RELAY

I <sub>pp</sub> max* (A)	P / N	V <sub>R</sub> min @ I <sub>R</sub>		V <sub>BO</sub> max (50Hz) (V)	I <sub>H</sub> min (mA)	Package
		(V)	(μA)			
2 x 35	SSRP105B1	+ 105 / -180	10	+ 165 / -225	150	SO-8
2 x 15	SSRP130B1	+ 130 / -185	10	+ 200 / -280	150	SO-8

## FIXED VOLTAGE PROTECTION FOR SLIC

I <sub>pp</sub> max* (A)	V <sub>RM</sub> (V)	I <sub>RM</sub> max @ V <sub>RM</sub> (μA)	P / N	V <sub>BR</sub> min @ I <sub>R</sub>		V <sub>BO</sub> max (V)	I <sub>H</sub> min (mA)	Package
				(V)	(μA)			
40	63	100	THDT6511D	65	1	85	150	SO-8

\* 10/100μs waveform

New products in red characters

## PROTECTION ICs: PROGRAMMABLE VOLTAGE SLIC PROTECTION

$I_{PP} \text{ max}^*$ (A)	P / N	$V_{RM}$ (V)	$I_{RM} \text{ max} @ V_{RM}$ ( $\mu$ A)	Max Oper. Voltage (V)	$V_{DGL} \text{ max} (10/700\mu\text{s})$ (V)	$I_H \text{ min}$ (mA)	Package
<b>2 x 15</b>	<b>LCDP1521</b>	<b>150</b>	<b>5</b>	<b>150</b>	<b>5</b>	<b>150</b>	<b>SO-8</b>
30	LCP02-150B1	-105 / +90	5	-110 to +95	8	150	SO-8 Wide
100	LCP02-150M	-105 / +90	5	-110 to +95	6	150	PowerSO-10
30	LCP1521	150	5	150	7	150	SO-8
100	LCP3121	60	5	80	-	100	SO-8

## PROTECTION ICs: PROGRAMMABLE CURRENT & VOLTAGE LINE CARD PROTECTION

$I_{PP} \text{ max}^*$ (A)	$V_{LG}$ (V)	$I_{LGL} \text{ max} @ V_{LG}$ ( $\mu$ A)	P / N	$V_{ret} \text{ min} @ I_{LGL}$		$V_{SWON} \text{ max} @ I_{SWOFF} \text{ min}$		Package
				(V)	(mA)	(V)	(mA)	
100	10	200	CLP200M	215	1	290	150	PowerSO-10
100	10	240	CLP270M	270	1	380	150	PowerSO-10

## ISDN S & U INTERFACE PROTECTION

$I_{PP} \text{ max}^*$ (A)	$V_{RM}$ (V)	$I_{RM} \text{ max} @ V_{RM}$ ( $\mu$ A)	P / N	$V_{BR} \text{ min} @ I_R$		$V_{BO} \text{ max} @ I_{BO}$		$I_H \text{ min}$ (mA)	Package
				(V)	(mA)	(V)	(mA)		
30	70	10	TPI8011N	80	1	120	800	150	SO-8
30	105	10	TPI12011N	120	1	180	800	150	SO-8

## T1/E1 INTERFACE PROTECTION

$I_{PP} \text{ max}^*$ (A)	$V_{RM}$ (V)	$I_{RM} \text{ max} @ V_{RM}$ ( $\mu$ A)	P / N	$V_{BO} \text{ max} @ I_{BO}$		$I_H \text{ min}$ (mA)	Package
				(V)	(mA)		
30	28	4	TPN3021	38	300	30	SO-8

## BRIDGE & PROTECTION ALL-IN-ONE FOR TELECOM TERMINALS

$I_{PP} \text{ max}^*$ (A)	$V_{RM}$ (V)	$I_{RM} \text{ max} @ V_{RM}$ ( $\mu$ A)	P / N	$V_{BO} \text{ max} @ I_{BO}$		$I_H \text{ min}$ (mA)	Package
				(V)	(mA)		
30	180	5	TSI180B1	250	400	150	SO-8
30	200	5	TSI200B1	290	400	150	SO-8
30	220	5	TSI220B1	330	400	150	SO-8

## PROGRAMMABLE VOLTAGE PROTECTION FOR TELECOM TERMINAL

$I_{PP} \text{ max}^*$ (A)	$V_{RM} \text{ max} @ I_{RM}$		P / N	$V_{BR} \text{ min} @ I_R$		$V_{BO} \text{ max} @ I_{BO}$		$I_H \text{ min}$ (mA)	Package
	(V)	( $\mu$ A)		(V)	(mA)	(V)	(mA)		
30	60	6	TPP25011	250	1	340	200	180	SO-8

\* 10/1000 $\mu$ s waveform

New products in red characters



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