

**AUTOMOTIVE TRANSIENT SUPPRESSORS
IGNITION PROTECTION**

Type	I_{RM} @ V_{RM} max		V_{BR}^* (V) @ $T_j = 25^\circ\text{C}$		V_{BR} (V) @ I_R @ $T_j = 120^\circ\text{C}$		αT typ.	I_{ZM}	Package	
	(μA)	(V)	min	max	min	max	(mA)	($10^{-4}/^\circ\text{C}$)		(mA)
PL 360 D	0.35	270	330	370	358	416	2	11	3.5	F126 PLASTIC

* Pulse test $t_p \leq 50 \text{ ms}$ $\delta < 2\%$

DECENTRALIZED PROTECTION

Type	I_{RM} @ V_{RM} max			V_{BR}^* @ I_R $T_c = 25^\circ\text{C}$ LOAD DUMP			V_{CL} @ I_{PP} $T_c = 25^\circ\text{C}$		αT max ($10^{-4}/^\circ\text{C}$)	C Typ $V_R = 0\text{V}$ $F = 1\text{MHz}$ (nF)	Package
	$T_c = 25^\circ\text{C}$ (μA)	$T_c = 85^\circ\text{C}$ (μA)	(V)	min (V)	max (V)	(mA)	max (V)	(A)			
LDP24AS	50	300	24	25	32	1	38	40	9.6	8	AG
▲ LDP24M	50	300	24	25	32	1	38	30		8	SOP10
RBO08-40T	10	100	20	24	32	1	40	37.5†		2	(PowerSO-10)
RBO40-40T	10	100	20	24	32	1	40	20		7	TO-220AB (Plastic)
▲ RBO40-40M	10	100	20	24	32	1	40	20		8	TO-220AB SOP10 (PowerSO-10)

▲ New Product.

* Pulse test $t_p \leq 50 \text{ ms}$ $\delta < 2\%$

† T = 1ms

Use "RL" suffix for tape and reel packaging.



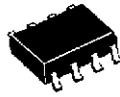
CB429



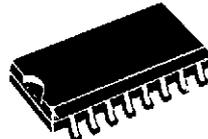
SMB



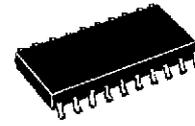
SMC



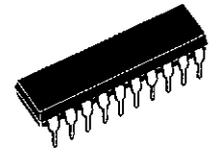
SO8



SO16



SO20



DIL20

COMPUTER TRANSIENT SUPPRESSORS
3V & 5V & 12V SUPPLY PROTECTION

Type	$I_{RM} @ V_{RM}$		$V_{BR}^* @ I_R$		$V_{CL} @ I_{PP}$ 1 ms expo max		$V_{CL} @ I_{PP}$ 1 ms expo max		$V_{CL} @ I_{PP}$ 1 ms expo max		α_T max ($10^{-4}/^{\circ}C$)	Package
	(μA)	(V)	(V)	(mA)	(V)	(A)	(V)	(A)	(V)	(A)		

1.5 KW/1 ms expo.

$I_{FSM} = 250 A - 10 ms$

1N 5908	300	5	6	1	7.6	30	8.0	60	8.5	120	5.7	CB429 PLASTIC
SM5908	300	5	6	1	7.6	30	8.0	60	8.5	120	5.7	SMC PLASTIC

600W @ 1 ms

$I_{FSM} = 50 A - 10 ms$

SMLVT3V3	200	3.3	4.1	1	7.3	50	7.3	50	10.3	200	-	SMB
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* Pulse test $t_p \leq 50 ms$ $\delta < 2\%$.

For axial use "RL" suffix for tape and reel packaging.

For SOD15, standard packaging is in film.

Type	Max ratings		$I_{RM} @ V_{RM}$		$V_{BR}^* @ I_R$		$V_{CL} @ I_{PP}$		Package
	I_{PP} 8-20 μs (2)		max		min		8-20 μs expo max		
	(A)	(μA)	(V)	(V)	(mA)	(V)	(A)		
DDP6V8	12	5	5 and 12	6.8 and 13.6	1	10 and 20	3	SO8	

RCD NETWORK FOR BUS TERMINATION

Type	R		C		D					Package
					$I_R @ V_{RRM} = 7.5 V$		V_F		C_d @ $V_{bias} = 0V$	
	@ 25°C	@ 70°C	@ 1mA	@ 16mA	@ $V_{bias} = 0V$					
	min	max	min	max	max	max	max	max	max	
	Ω	Ω	pF	pF	μA	μA	V	V	pF	
RCD16-47B6	42	52	29	37	1	10	0.5	1	8	SSOP20

COMPUTER TRANSIENT SUPPRESSORS (Cont'd)

**TRANSIL ARRAYS FOR DATA LINE INTERFACE PROTECTION
PROTECTION AGAINST ELECTRICAL OVERSTRESS (EOS)**

Function	Type	Max ratings		I _{RM} @ V _{RM}		V _{BR} * @ I _R		V _{CL} @ I _{PP}		Package
		I _{PP} 8-20 μs (2)		max		min		8-20 μs expo max		
		(A)	(μA)	(V)	(V)	(mA)	(V)	(A)		
4 Bidirectional Transils	ITA6V5B1 (1)	40	50	5	6.5	1	10	10	SO8 PLASTIC	
	ITA10B1 (1)	40	10	8	10	1	15	10		
	ITA18B1 (1)	40	4	15	18	1	25	10		
	ITA25B1 (1)	40	4	24	25	1	33	10		
8 Bidirectional Transils	ITA6V5B3	40	50	5	6.5	1	9.5	10	SO20 PLASTIC	
	ITA10B3 (1)	40	10	8	10	1	13	10		
	ITA18B3	40	4	15	18	1	23	10		
	ITA25B3 (1)	40	4	24	25	1	31	10		
6 Unidirectional Transils	ITA6V1U1	40	50	5	6.1	1	10	10	SO8 PLASTIC	

* Pulse test t_p ≤ 50 ms δ < 2%.

(1) When used on positive & negative data line signal (+/- V_{IN}), V_{BR} must be greater than 2 x +/- V_{IN}.

(2) MIL STD 883C – Method 3015-2.

Standard packaging in tube.

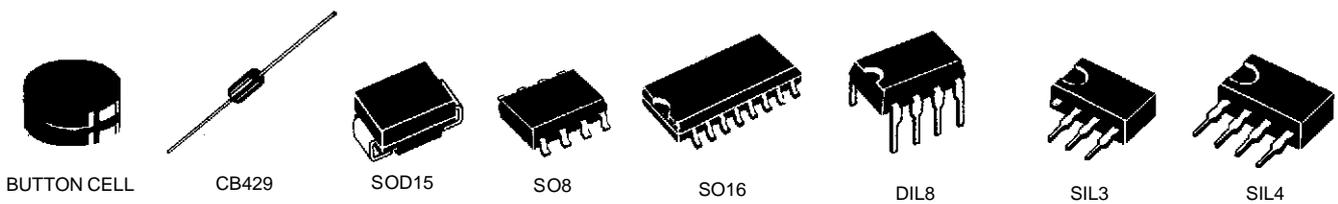
**TRANSIL ARRAYS FOR DATA LINE INTERFACE PROTECTION
PROTECTION AGAINST ELECTROSTATIC DISCHARGE (ESD)**

Function	Type	I _{RM} @ V _{RM}		V _{BR} @ I _R			R _d	C1 @ Ø V	C2 @ V _{RM}	Package
				min	max					
		(μA)	(V)	(V)	(V)	(mA)				
6 Bidirectional Transils	ESDA25B1	2	24	25	30	1	1.5	15	9	SO8 PLASTIC
18 Bidirectional Transils	ESDA25DB3	2	24	25	30	1	0.5	50	30	SO20 PLASTIC
6 Unidirectional Transils	ESDA6V1U1	2	5	6.1	7.2	1	0.5	100	50	SO8 PLASTIC
18 Unidirectional Transils	ESDA6V1S3	2	5	6.1	7.2	1	0.5	120	60	SO20 PLASTIC
▲ 18 Unidirectional Transils	ESDA6V1S6	2	5	6.1	7.2	1	0.5	120	60	SSOP20

HIGH SPEED LINES PROTECTION

Function	Type	V _{RRM}	I _{PP} T _a = 25°C 8/20μs	P _{tot} T _a = 70°C	I _R @ V _R = 15V max T _a = 25°C		V _F @ I _F max		V _{ip} @ I _{PP} 8/20μs		Package
		(V)	(A)	(W)	(μA)	(μA)	(V)	(mA)	(V)	(A)	
8 diodes	DA108S1	18	12	0.73	2		1.2	50	9	12	SO8
12 diodes	DA112S1	18	12	0.73	2		1.2	50	9	12	SO8

▲ New Products


TELECOM TRANSIENT SUPPRESSORS
TERMINAL PROTECTION

Type	$I_{RM} @ V_{RM}$		$V_{BR} @ I_R$ (1)		$V_{BO} @ I_{BO}$ (1)			I_H min	V_T $I_T=1A$ typ	Package
	max		min		max					
	(μA)	(V)	(V)	(mA)	(V)	min	max			
L3100B	6	60	265	1	350	200	500	280	2	DIL8 PLASTIC
L3100B1	40	250	255	1	350	200	500	210	2	
TPP25011	6	60	250	1	340	15	200	180	2.5	SO8 PLASTIC
TPP25012	6	60	250	1	340	15	200	180	2.5	DIL8 PLASTIC
TSI120B5	1	50	–	–	180	50	400	150	3	SO16 PLASTIC
	5	120								
TSI150B5	1	50	–	–	230	50	400	150	3	SO16 PLASTIC
	5	150								
TSI180B5	1	50	–	–	250	50	400	150	3	SO16 PLASTIC
	5	180								
TSI200B5	1	50	–	–	290	50	400	150	3	SO16 PLASTIC
	5	200								
TSI270B5	1	50	–	–	380	50	400	150	3	SO16 PLASTIC
	5	270								
TSI62B5	1	50	–	–	90	50	400	150	3	SO16 PLASTIC
	5	62								

(1) Without any gate reference - Gate open.
 Standard packaging in tube.

RING RELAY PROTECTION

Type	I_{RM} @ V_{RM}		V_{BR} @ I_R (1)		V_{BO} @ I_{BO}			I_{PP} (1)	I_H	Package
	max		max		max				min	
	(μA)	(V)	(V)	(mA)	(V)	min	max	(V)	(mA)	
THBT15011D	5	135	150	1	210	50	400	30	150	SO8
THBT20011DA	5	180	200	1	290	–	400	30	150	
THBT27011	5	240	270	1	380	50	400	30	150	
THBT15012D	5	135	150	1	210	50	400	30	150	DIL8
THBT20012DA	5	180	200	1	290	–	400	30	150	
THBT27012	5	240	270	1	380	50	400	30	150	
THBT200S	10	180	200	1	290	150	800	75	150	SIL3
THBT200SD	5	180	200	1	290	50	400	75	150	

(1) At 10-1000 μs .

For SO8, DIL8 and SIL3 standard packaging is in tube.

For SOD15 standard packaging is in film.

SLIC PROTECTION - FIXED BREAKDOWN VOLTAGE

Type	I_{RM} @ V_{RM}		V_{BR} @ I_R		V_{BO} @ I_{BO}			I_{PP} (2)	I_H	Package
	max		min		max			max	min	
	(μA)	(V)	(V)	(mA)	(V)	min	max	(A)	(mA)	
THDT6511	10	56	65	1	85	50	500	30	150	SO8
THDT6512	10	56	65	1	85	50	500	30	150	DIL8
THDT58S	10	56	58	1	80	150	800	75	150	SIP3
SMTHDT58 (1)	10	56	58	1	80	150	800	75	150	SMC
SMTHD80	10	68	80	1	120	150	800	75	150	SMC
SMDT120	10	102	120	1	180	150	800	75	150	SMC

(1) Single function.

(2) At 10-1000 μs .

SLIC PROTECTION PROGRAMMABLE BREAKDOWN VOLTAGE

Type	Max operating voltage	I_{RM} @ V_{RM} (1) max		V_{DGL} * (2) max	I_{PP} (3) max	I_H min	Package
	(V)	(μA)	(V)	(V)	(A)	(mA)	
LCP3121	80	10	85	-	100	150	SO8
LCP150S	80	10	75	15	50	150	SIP4
LCP1511	80	5	75	10	30	150	SO8
LCP1512D	80	5	75	10	30	150	SO8

1) $V_{GATE/LINE} = -1V$ 2) At 10-700 μs $I_{PP} = 30A$ $V_{GATE} = -48V$ 3) At 10-1000 μs

ISDN PROTECTION

Types	I _{RM} @ V _{RM}		V _{BR} @ R		V _{BO} @ I _{BO}		I _H	V _T	Package
	max		min		max	max	min	max	
	(μ A)	(V)	(V)	(mA)	(V)	mA	(mA)	(V)	
TPU58	10	56	58	1	80	800	150	5	CB429
TPU80	10	68	80	1	120	800	150	5	
TPU120	10	102	120	1	180	800	150	5	
SMTHDT58	10	56	58	1	80	800	150	5	SOD15
SMTHDT80	10	68	80	1	120	800	150	5	
SMTHDT120	10	102	120	1	180	800	150	5	
SMDT65	10	56	65	1	90	600	150	4	SOD6
SMDT80	10	68	80	1	120	600	150	4	
SMDT120	10	102	120	1	160	600	150	4	
TPI80xxN	10	70	80	1	120	800	150	8	SO8/DIL8
TPI120xxN	10	105	120	1	180	800	150	8	
▲ TPN3021	4	28	–	–	30	100	30	4	SO8

▲ New Products