

Protection devices



Selection guide





Content

IEC61000-4-2 ESD protection
IEC61000-4-5 8-20 μ s TV
Standard 10/1000 μ s T
ITU-T K2x & GR-1089 Pr



IEC61000-4-2 ESD protection

Part number	Number of lines	IEC 61000-4-2 contact/air	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM}	Breakdown voltage V_{BR} @ $I_R = 1$ mA	Capacitance I/O to GND @ 0 V bias	C
		(kV)	(V)	max (μ A)	min (V)	typ (pF)	
Bidirectional							
ESDARF01-1BM2	1	> 8/15	0.1	1	0.7	3	
ESDARF02-1BU2CK	1	> 8/20	3.6	0.1	5	0.2	
ESDALCL5-1BM2	1	> 8/15	1	0.001	5	26	
ESDALC5-1BM2	1	> 8/15	5	0.1	5	27	
ESDALC5-1BT2	1	> 8/15	5	0.06	5	27	
ESDALC5-1BT2Y(**)	1	> 8/15	5	0.06	5	27	
ESDAULC5-1BF4	1	> 30/30	3	0.07	5.8	1.5	
ESDALC5-1BF4	1	> 8/15	5	0.1	5.8	10	
ESDA5-1BF4	1	> 8/15	5	0.1	5.8	45	
ESDARF02-1BU2	1	> 8/15	3	0.07	6	0.24	
ESDAXLC6-1BU2K	1	> 8/20	3	0.07	6	0.24	
ESDAXLC6-1BT2	1	> 8/15	6	0.07	6	0.4	
ESDAXLC6-1BT2Y(**)	1	> 8/15	6	0.07	6	0.4	
ESDAXLC6-1BU2	1	> 8/15	3	0.07	6	0.4	
ESDAVLC6-1BV2	1	> 12/15	3	0.05	6	7.5	
ESDALC6V1-1BU2	1	> 8/15	3	0.1	6.1	5	
ESDALC8-1BF4	1	> 8/15	6	0.05	7	30	
ESDAVLC8-1BM2	1	> 8/15	3	0.05	8.5	4.5	
ESDAVLC8-1BT2	1	> 8/15	3	0.05	8.5	4.5	
ESDAVLC8-1BT2Y(**)	1	> 8/15	3	0.05	8.5	4.5	
ESDAVLC8-1BU2	1	> 8/15	3	0.1	8.5	5	

Note: (*) Qualified in Q3/2016, (**) Automotive-grade (AEC-Q101 qualified)

Part number	Number of lines	IEC 61000-4-2 contact/air	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM}	Breakdown voltage V_{BR} @ $I_R = 1$ mA	Capacitance I/O to GND @ 0 V bias	Ca
		(kV)	(V)	max (μ A)	min (V)	typ (pF)	
ESDAVLC12-1BV2	1	> 8/15	10.5	0.07	12	7	
ESDALC14-1BF4	1	> 8/15	12	0.1	14	22	
ESDA14V2-1BF3	1	> 8/15	12	0.5	14.2	10	
ESDAXLC18-1BF4	1	> 10/30	18	0.03	19	0.45	
ESDL20-1BF4(*)	1	> 20/30	20	0.01	22	13	
ESDLIN03-1BWY(**)	1	> 30/30	26.5	0.01	27	3	
ESDLIN1524BJ(**)	1	> 30/30	15/24	0.05	17,1/25,4	16	
ESDV5-1BF4(*)	1	> 12/30	5.5	0.1	5.8	5	
ESDZV5-1BF4(*)	1	> 18/30	5.5	0.1	5.8	6	
ESDZV5H-1BF4(*)	1	> 8/15	5.5	0.1	7	4	
ESDA14V2-2BF3	2	> 8/15	12	0.5	14.2	12	
ESDCAN03-2BWY(**)	2	> 30/30	24	0.01	25	3	
ESDCAN01-2BLY(**)	2	> 30/30	24	0.1	25	30 max	
ESDCAN02-2BWY(**)	2	> 30/30	26.5	0.01	27	3	
ESDCAN24-2BLY(**)	2	> 30/30	24	0.1	27	30 max	
ESDAULC6-3BP6	3	> 8/15	5	0.5	6	1	
ESDAVLC5-4BX4	4	> 8/15	3	0.05	5.5	10	
ESDALC5-4BN4	4	> 8/15	5	0.06	5.5	13	
ESDA6V1BC6	4	> 8/15	5	1	6.1	20	
ESDA6V1-4BC6	4	> 8/15	3	1	6.1	45	
ESDAVLC8-4BN4	4	> 8/15	3	0.05	8.5	4.5	
DALC208SC6	4	> 8/15	5	1	9	7	
DALC208SC6Y(**)	4	> 8/15	5	1	9	7	
ESDA14V2-4BF2	4	> 8/15	12	1	14.2	15	

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Part number	Number of lines	IEC 61000-4-2 contact/air	Stand-off voltage V_{RM}	Leakage current $I_{RM} @ V_{RM}$	Breakdown voltage $V_{BR} @ I_R = 1 \text{ mA}$	Capacitance I/O to GND @ 0 V bias	C
		(kV)	(V)	max (μA)	min (V)	typ (pF)	
ESDA14V2BP6	4	> 8/15	12	1	14.2	20	
ESDA14V2-4BF3	4	> 8/15	12	0.5	14.2	15 (max)	
DA108S1	4	> 8/15	15	2	18	34	
ESDA25-4BP6	4	> 8/15	24	1	25	22	
ESDAVLC7-5BU6	5	> 8/15	6	0.03	7	5	
DALC112S1	6	> 6/8	15	2	18	7	
DA112S1	6	> 8/15	15	2	18	34	
ESDA25B1	6	> 8/15	24	2	25	15	
Unidirectional							
ESDA5-1F4	1	> 30/30	5.5	100	5.8	110	
ESDAULC6-1U2	1	> 8/15	3	0.1	6	0.8	
ESDAVLC6-1V2	1	> 12/15	3	0.05	6	7.5	
ESDAXLC6-1MY2	1	> 8/15	3	0.1	6	0.35 max	
ESDLC6-1U2	1	> 8/15	3	0.1	6.1	12	
ESDLC6V1-1U2	1	> 8 / -	3	0.1	6.1	12	
ESDLC6V1-1M2	1	> 8/15	3	0.1	6.1	22	
ESDA7P60-1U1M	1	> 30/30	5.5	0.2	6.4	450	
ESDA8P80-1U1M	1	> 30/30	6.3	0.2	6.9	480	
ESDA8V2-1J	1	> 8/15	5	0.5	8.2	210	
ESDA8V2-1MX2	1	> 8/15	5	0.5	8.2	350	
ESDALC12-1T2	1	> 8/15	10	0.2	12	15	
ESDA12-1K	1	> 8/15	10	0.5	12	200	
ESDA13P70-1U1M	1	> 30/30	12	0.2	12.5	390	
ESDA15P60-1U1M	1	> 30/30	13.2	0.05	13.6	335	

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Part number	Number of lines	IEC 61000-4-2 contact/air	Stand-off voltage V_{RM}	Leakage current $I_{RM} @ V_{RM}$	Breakdown voltage $V_{BR} @ I_R = 1 \text{ mA}$	Capacitance I/O to GND @ 0 V bias	C
		(kV)	(V)	max (μA)	min (V)	typ (pF)	
ESDAVLC14-1V2	1	> 12/15	12	0.1	14	7.5	
ESDALC14V2-1U2	1	> 8/16	3	0.1	14.2	6	
ESDAVLC14-1U2	1	> 8/15	12	0.1	14.2	6	
ESDA17P50-1U1M	1	> 30/30	15	0.05	15.6	290	
ESDA18-1F4	1	> 8/15	12	0.02	16	120	
ESDA18-1F2	1	> 8/15	10	0.5	16	230	
ESDA18-1K	1	> 8/15	16	0.5	18	200	
ESDA20P50-1U1M	1	> 30/30	18	0.05	18.5	240	
ESDA25P35-1U1M	1	> 30/30	22	0.2	23.3	190	
ESDA5V3L	2	> 8/15	3	2	5.3	220	
ESDA5V3LY(**)	2	> 8/15	3	2	5.3	220	
USBULC6-2F7	2	> 10/30	3	0.07	5.5	1	
HSP061-2N4	2	> 8/15	3	0.1	6	0.6	
USBULC6-2N4	2	> 8/15	3	0.1	6	0.6	
HSP062-2M6	2	> 8/15	5	0.5	6	0.8	
HSP061-2M6	2	> 8/15	5	0.5	6	0.85	
USBULC6-2M6	2	> 8/15	5	0.5	6	0.95	
USBULC6-2F4	2	> 8/15	3	0.1	6	1	
ESDALCL6-2SC6	2	> 8/15	1	0.001	6	2.5	
USBLC6-2P6	2	> 8/15	5	1	6	2.5	
USBLC6-2SC6	2	> 8/15	5	1	6	2.5	
USBLC6-2SC6Y(**)	2	> 8/15	5	1	6	2.5	
USBULC6-2F3	2	> 8/15	3	0.1	6	1.2 (max)	
ESDALC6V1M3	2	> 8/15	5	0.5	6.1	11	

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Part number	Number of lines	IEC 61000-4-2 contact/air	Stand-off voltage V_{RM}	Leakage current $I_{RM} @ V_{RM}$	Breakdown voltage $V_{BR} @ I_R = 1 \text{ mA}$	Capacitance I/O to GND @ 0 V bias	C
		(kV)	(V)	max (μA)	min (V)	typ (pF)	
ESDA6V1L	2	> 8/15	5.25	20	6.1	140	
ESDA6V1LY ^(*)	2	> 8/15	5.25	20	6.1	140	
ESDA14V2L	2	> 8/15	12	5	14.2	90	
ESDA14V2LY ^(*)	2	> 8/15	12	5	14.2	90	
ESDA25L	2	> 8/15	24	1	25	50	
ESDA25LY ^(*)	2	> 8/15	24	1	25	50	
ESDA25W	2	> 8/15	24	1	25	65	
USBULC6-3F3	3	> 8/15	3	0.1	4	1	
ESDA5V3SC5	4	> 8/15	3	2	5.3	280	
ESDA5V3SC6	4	> 8/15	3	2	5.3	280	
ESDA5V3SC6Y ^(*)	4	> 8/15	3	2	5.3	280	
HSP051-4M10	4	> 8/15	3	0.07	6	0.5	
HSP051-4N10	4	> 8/15	3	0.07	6	0.5	
HSP061-4NY8	4	> 8/15	5	0.1	6	0.5	
HSP061-4M10	4	> 8/15	3	0.07	6	0.6	
HDMIULC6-4F3	4	> 8/15	3	0.1	6	0.7	
DVIULC6-4SC6	4	> 8/15	5	0.5	6	0.85	
DVIULC6-4SC6Y ^(*)	4	> 8/15	5	0.5	6	0.85	
HDMIULC6-4SC6	4	> 8/15	5	0.5	6	0.85	
DSILC6-4P6	4	> 8/15	5	0.5	6	2	
DSILC6-4F2	4	> 8/15	5	0.5	6	2.5	
ESDALCL6-4P6A	4	> 8/15	1	0.001	6	2.5	
USBLC6-4SC6	4	> 8/15	5	2	6	3	
USBLC6-4SC6Y ^(*)	4	> 8/15	5	2	6	3	

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Part number	Number of lines	IEC 61000-4-2 contact/air	Stand-off voltage V_{RM}	Leakage current $I_{RM} @ V_{RM}$	Breakdown voltage $V_{BR} @ I_R = 1 \text{ mA}$	Capacitance I/O to GND @ 0 V bias	C
		(kV)	(V)	max (μA)	min (V)	typ (pF)	
DSILC6-4SC6	4	> 8/ -	5	0.5	6	4.1	
USB6B1RL	4	> 8/15	5.25	10	6	15	
ESDALC6-4N4	4	> 8/15	3	0.1	6.1	9.5	
ESDALC6V1P5	4	> 8/15	3	0.1	6.1	12	
ESDALC6V1P6	4	> 8/15	3	0.1	6.1	12	
ESDALC6V1W5	4	> 8/15	3	0.1	6.1	12	
ESDA6V1P6	4	> 8/15	3	0.5	6.1	70	
ESDA6V1W5	4	> 8/15	3	1	6.1	90	
ESDA6V1SC5	4	> 8/15	5.25	20	6.1	190	
ESDA6V1SC6	4	> 8/15	5.25	20	6.1	190	
ESDA6V1SC6Y ^(*)	4	> 8/15	5.25	20	6.1	190	
ESDA14V2SC5	4	> 8/15	12	5	14.2	100	
ESDA14V2SC5Y ^(**)	4	> 8/15	12	5	14.2	100	
ESDA14V2SC6	4	> 8/15	12	5	14.2	100	
ESDA19SC6	4	> 8/15	15	0.1	19	80	
ESDA25W5	4	> 8/15	24	1	25	30	
ESDA25SC6	4	> 8/15	24	1	25	60	
ESDA25SC6Y ^(**)	4	> 8/15	24	1	25	60	
ESDALC6-5T6	5	> 8/15	3	0.1	6.1	7	
ESDA6V1-5T6	5	> 8/15	3	0.1	6.1	12	
ESDALC6V1-5M6	5	> 8/15	3	0.07	6.1	12	
ESDALC6V1-5P6	5	> 8/15	3	0.07	6.1	12	
ESDALC6V1-5P6M	5	> 8/15	3	0.07	6.1	12	
ESDALC6V1-5T6	5	> 8/15	3	0.1	6.1	12	

Note: (*) Qualified in Q3/2016, (**) Automotive-grade (AEC-Q101 qualified)

Part number	Number of lines	IEC 61000-4-2 contact/air	Stand-off voltage V_{RM}	Leakage current $I_{RM} @ V_{RM}$	Breakdown voltage $V_{BR} @ I_R = 1 \text{ mA}$	Capacitance I/O to GND @ 0 V bias	C
		(kV)	(V)	max (μA)	min (V)	typ (pF)	
ESDA6V1-5SC6	5	> 8/15	3	1	6.1	50	
ESDA6V1-5W6	5	> 8/15	3	1	6.1	50	
ESDA6V1-5M6	5	> 8/15	3	0.5	6.1	70	
ESDA6V1-5P6	5	> 8/15	3	0.5	6.1	70	
ESDA17-5SC6	5	> 8/15	14	0.075	17	35	
ESDA6V1U1	6	> 8/15	5	2	6.1	100	
HSP061-8M16	8	> 8/15	5	0.5	6	0.6	
ESDAULC6-8F3	8	> 8/15	3	0.1	6	1	

Note: (*) Qualified in Q3/2016, (**) Automotive-grade (AEC-Q101 qualified)

IEC61000-4-5 8-20 μ s TVS

Part number	Number of protected lines	Peak pulse power (PPP) 8/20 μ s	Peak pulse current IPP 8/20 μ s @ 25 °C	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM}	Breakdown voltage V_{BR} @ I_R
		(W)	(A)	(V)	max (μ A)	Min (V)
LFTVS10-1F3	1	350	5	8	0.5	10
LFTVS18-1F3	1	350	5	10	0.5	18
ESDA18-1K	1	500	12	16	0.1	16
ESDA18-1F4	1	350	13	12	0.1	16
ESDA12-1K	1	500	16	10	0.1	12
ESDA18-1F2	1	700	20	12	0.1	16
LBP01-0810B	1	-	24	3	0.1	8
ESDA8V2-1J	1	500	24	6	0.1	8
LBP01-0803SC5	1	-	24	3	0.1	8
SPT02-236DDB	1	1400	25	36	1	38
ESDA25P35-1U1M	1	1400	35	22	0.2	23.3
ESDA20P50-1U1M	1	1100	40	18	0.05	18.5
ESDA17P50-1U1M	1	1100	46	15	0.05	15.6
ESDA15P60-1U1M	1	1200	57	13.2	0.05	13.6
ESDA7P60-1U1M	1	700	60	5.5	0.2	6.4
ESDA13P70-1U1M	1	1300	70	12	0.2	12.5
ESDA8P80-1U1M	1	1100	80	6.3	0.2	6.9
LNBTVS3-220U	1	8750	250	20	1	22
LNBTVS4-220S	1	11690	334	20	1	22
LNBTVS4-221S	1	10688	334	20	1	22
LNBTVS4-222S	1	10020	334	20	1	22
LNBTVS4-304S	1	15030	334	28	1	30

Part number	Number of protected lines	Peak pulse power (PPP) 8/20 μ s	Peak pulse current IPP 8/20 μ s @ 25 °C	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM}	Breakdown voltage V_{BR} @ I_R
		(W)	(A)	(V)	max (μ A)	Min (V)
LNBTVS6-220S	1	17500	500	20	1	22
LNBTVS6-221S	1	16000	500	20	1	22
STIEC45-24ACS	1	21000	500	24	0.2	26.7
STIEC45-24AS	1	21000	500	24	0.2	26.7
STIEC45-26ACS	1	22500	500	26	0.2	28.9
STIEC45-26AS	1	22500	500	26	0.2	28.9
LNBTVS6-304S	1	22500	500	28	1	30
STIEC45-27AS	1	23500	500	27	0.2	30
STIEC45-28ACS	1	24500	500	28	0.2	31.1
STIEC45-28AS	1	24500	500	28	0.2	31.1
STIEC45-30ACS	1	27500	500	30	0.2	33.3
STIEC45-30AS	1	27500	500	30	0.2	33.3
STIEC45-33ACS	1	29500	500	33	0.2	36.7
STIEC45-33AS	1	29500	500	33	0.2	36.7
SPT02-236DDB	2	1400	25	36	1	38
SPT01-335DEE	3	92	2	36	1	38
PEP01-5841	4	2700	24	58	0.2	64.4
SLVU2.8-4A1	4	600	30	2.8	0.2	-
ITA6V5B1	4	300	40	5	10	6.5
ITA10B1	4	300	40	8	4	10
ITA18B1	4	300	40	15	4	18
ITA25B1	4	300	40	24	4	25
ITA6V1U1	6	300	40	5	10	6.1
SLVU2.8-8A1	8	600	30	2.8	0.2	-

Part number	Number of protected lines	Peak pulse power (PPP) 8/20 μ s	Peak pulse current IPP 8/20 μ s @ 25 °C	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM}	Breakdown voltage V_{BR} @ I_R
		(W)	(A)	(V)	max (μ A)	Min (V)
STIEC45-28AS	1	24500	500	28	0.2	31.1
STIEC45-30AS	1	27500	500	30	0.2	33.3
STIEC45-33AS	1	29500	500	33	0.2	36.7

Standard 10/1000 μ s TVS

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SMX1J7.5A-TR	-	85	800	7.5	1	8.2
BZW04-5V8	BZW04-5V8B	400	2200	5.8	10	6.45
BZW04-7V8	BZW04-7V8B	400	2200	7.8	10	8.65
BZW04-10	BZW04-10B	400	2200	10.2	5	11.4
BZW04-13	BZW04-13B	400	2200	12.8	5	14.3
BZW04-15	BZW04-15B	400	2200	15.3	1	17.1
BZW04-26	BZW04-26B	400	2200	25.6	0.5	28.5
BZW04-28	BZW04-28B	400	2200	28.2	0.5	31.4
BZW04-31	BZW04-31B	400	2200	30.8	0.5	34.2
BZW04-33	BZW04-33B	400	2200	33.3	0.5	37.1
BZW04-37	BZW04-37B	400	2200	37	0.5	40.9
BZW04-48	BZW04-48B	400	2200	47.8	0.5	53.2
BZW04-58	BZW04-58B	400	2200	58	0.5	64.6
BZW04-70	BZW04-70B	400	2200	70	0.5	77.9
BZW04-239	BZW04-239B	400	2200	239	0.5	266
BZW04-299	BZW04-299B	400	2200	299	0.5	332
BZW04-342	BZW04-342B	400	2200	342	0.5	380
BZW04-376	BZW04-376B	400	2200	376	0.5	418
SMAJ5.0A-TR	SMAJ5.0CA-TR	400	2200	5	20	6.4
SMAJ6.0A-TR	SMAJ6.0CA-TR	400	2200	6	20	6.7
SMAJ6.5A-TR	SMAJ6.5CA-TR	400	2200	6.5	20	7.2
SMAJ8.5A-TR	SMAJ8.5CA-TR	400	2200	8.5	20	9.4
SMAJ10A-TR	SMAJ10CA-TR	400	2200	10	0.2	11.1

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SMAJ12A-TR	SMAJ12CA-TR	400	2200	12	0.2	13.3
SMAJ13A-TR	SMAJ13CA-TR	400	2200	13	0.2	14.4
SMAJ15A-TR	SMAJ15CA-TR	400	2200	15	0.2	16.7
SMAJ18A-TR	SMAJ18CA-TR	400	2200	18	0.2	20
SMAJ20A-TR	SMAJ20CA-TR	400	2200	20	0.2	22.2
SMAJ22A-TR	SMAJ22CA-TR	400	2200	22	0.2	24.4
SMAJ24A-TR	SMAJ24CA-TR	400	2200	24	0.2	26.7
SMAJ26A-TR	SMAJ26CA-TR	400	2200	26	0.2	28.9
SMAJ28A-TR	SMAJ28CA-TR	400	2200	28	0.2	31.1
SMAJ30A-TR	SMAJ30CA-TR	400	2200	30	0.2	33.3
SMAJ33A-TR	SMAJ33CA-TR	400	2200	33	0.2	36.7
SMAJ40A-TR	SMAJ40CA-TR	400	2200	40	0.2	44.4
SMAJ43A-TR	SMAJ43CA-TR	400	2200	43	0.2	47.8
SMAJ48A-TR	SMAJ48CA-TR	400	2200	48	0.2	53.3
SMAJ58A-TR	SMAJ58CA-TR	400	2200	58	0.2	64.4
SMAJ70A-TR	SMAJ70CA-TR	400	2200	70	0.2	77.8
SMAJ85A-TR	SMAJ85CA-TR	400	2200	85	0.2	94.4
SMAJ130A-TR	SMAJ130CA-TR	400	2200	130	0.2	144
SMAJ154A-TR	SMAJ154CA-TR	400	2200	154	0.2	171
SMAJ170A-TR	SMAJ170CA-TR	400	2200	170	0.2	189
SMAJ188A-TR	SMAJ188CA-TR	400	2200	188	0.2	209
SM4T6V7AY(*)	SM4T6V7CAY(*)	400	2300	5	20	6.4
SM4T7V6AY(*)	SM4T7V6CAY(*)	400	2300	6.5	20	7.2
SM4T10AY(*)	SM4T10CAY(*)	400	2300	8.5	20	9.4

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SM4T12AY(*)	SM4T12CAY(*)	400	2300	10	0.2	11.7
SM4T14AY(*)	SM4T14CAY(*)	400	2300	12	0.2	13.3
SM4T15AY(*)	SM4T15CAY(*)	400	2300	13	0.2	14.4
SM4T18AY(*)	SM4T18CAY(*)	400	2300	15	0.2	16.7
SM4T21AY(*)	SM4T21CAY(*)	400	2300	18	0.2	20.0
SM4T23AY(*)	SM4T23CAY(*)	400	2300	20	0.2	22.2
SM4T26AY(*)	SM4T26CAY(*)	400	2300	22	0.2	24.4
SM4T28AY(*)	SM4T28CAY(*)	400	2300	24	0.2	26.7
SM4T30AY(*)	SM4T30CAY(*)	400	2300	26	0.2	28.9
SM4T33AY(*)	SM4T33CAY(*)	400	2300	28	0.2	31.1
SM4T35AY(*)	SM4T35CAY(*)	400	2300	30	0.2	33.3
SM4T39AY(*)	SM4T39CAY(*)	400	2300	33	0.2	36.7
SM4T47AY(*)	SM4T47CAY(*)	400	2300	40	0.2	44.4
SM4T50AY(*)	SM4T50CAY(*)	400	2300	43	0.2	47.8
SM4T56AY(*)	SM4T56CAY(*)	400	2300	48	0.2	53.3
SM4T68AY(*)	SM4T68CAY(*)	400	2300	58	0.2	64.4
SM4T82AY(*)	SM4T82CAY(*)	400	2300	70	0.2	77.8
SMA4F5.0A-TR	-	400	2200	5	10	6.4
SMM4F5.0A-TR	-	400	2200	5	10	6.4
SMM4F6.0A-TR	-	400	2200	6	10	6.65
SMM4F6.5A-TR	-	400	2200	6.5	10	7.13
SMM4F8.5A-TR	-	400	2200	8.5	10	9.5
SMM4F10A-TR	-	400	2200	10	0.2	11.4
SMM4F12A-TR	-	400	2200	12	0.2	13.3

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SMM4F13A-TR	-	400	2200	13	0.2	14.3
SMM4F15A-TR	-	400	2200	15	0.2	17.1
SMM4F18A-TR	-	400	2200	18	0.2	20.9
SMM4F20A-TR	-	400	2200	20	0.2	22.8
SMM4F24A-TR	-	400	2200	24	0.2	26.6
SMM4F26A-TR	-	400	2200	26	0.2	28.5
SMM4F28A-TR	-	400	2200	28	0.2	31.4
SMM4F33A-TR	-	400	2200	33	0.2	37.1
BZW06-5V8	BZW06-5V8B	600	4000	5.8	1000	6.45
BZW06-6V4	BZW06-6V4B	600	4000	6.4	500	7.13
BZW06-10	BZW06-10B	600	4000	10.2	5	11.4
BZW06-13	BZW06-13B	600	4000	12.8	5	14.3
BZW06-15	BZW06-15B	600	4000	15.3	0.5	17.1
BZW06-19	BZW06-19B	600	4000	18.8	0.5	20.9
BZW06-23	BZW06-23B	600	4000	23.1	0.5	25.7
BZW06-26	BZW06-26B	600	4000	25.6	0.5	28.5
BZW06-28	BZW06-28B	600	4000	28.2	0.5	31.4
BZW06-31	BZW06-31B	600	4000	30.8	0.5	34.2
BZW06-33	BZW06-33B	600	4000	33.3	0.5	37.1
BZW06-37	BZW06-37B	600	4000	37	0.5	40.9
BZW06-48	BZW06-48B	600	4000	47.8	0.5	53.2
BZW06-58	BZW06-58B	600	4000	58	0.5	64.6
BZW06-171	BZW06-171B	600	4000	171	0.5	190
BZW06-273	BZW06-273B	600	4000	273	0.5	304

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
BZW06-342	BZW06-342B	600	4000	342	0.5	380
BZW06-376	BZW06-376B	600	4000	376	0.5	418
P6KE6V8A	P6KE6V8CA	600	4000	5.8	10	6.45
P6KE7V5A	P6KE7V5CA	600	4000	6.4	10	7.13
P6KE10A	P6KE10CA	600	4000	8.55	1	9.5
P6KE12A	P6KE12CA	600	4000	10	0.5	11.4
P6KE15A	P6KE15CA	600	4000	12.8	0.5	14.3
P6KE18A	P6KE18CA	600	4000	15.3	0.5	17.1
P6KE24A	P6KE24CA	600	4000	20	0.5	22.8
P6KE27A	P6KE27CA	600	4000	23.1	0.5	25.6
P6KE30A	P6KE30CA	600	4000	25.6	0.5	28.5
P6KE33A	P6KE33CA	600	4000	28.2	0.5	31.4
P6KE36A	P6KE36CA	600	4000	30.8	0.5	34.2
P6KE39A	P6KE39CA	600	4000	33.3	0.5	37.1
P6KE47A	P6KE47CA	600	4000	40	0.5	44.7
P6KE56A	P6KE56CA	600	4000	47.8	0.5	53.2
P6KE68A	P6KE68CA	600	4000	58.1	0.5	64.6
P6KE82A	P6KE82CA	600	4000	70.1	0.5	77.9
P6KE150A	P6KE150CA	600	4000	128	0.5	143
P6KE180A	P6KE180CA	600	4000	154	0.5	171
P6KE200A	P6KE200CA	600	4000	171	0.5	190
P6KE220A	P6KE220CA	600	4000	188	0.5	209
P6KE250A	P6KE250CA	600	4000	213	0.5	237
P6KE300A	P6KE300CA	600	4000	256	0.5	285

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
P6KE400A	P6KE400CA	600	4000	342	0.5	380
P6KE440A	P6KE440CA	600	4000	376	0.5	418
SMLVT3V3		600	2000	3.3	200	4.1
SM6T6V8A	SM6T6V8CA	600	4000	5.8	20	6.45
SM6T7V5A	SM6T7V5CA	600	4000	6.4	20	7.13
SM6T10A	SM6T10CA	600	4000	8.55	20	9.5
SM6T12A	SM6T12CA	600	4000	10.2	0.2	11.4
SM6T15A	SM6T15CA	600	4000	12.8	0.2	14.3
SM6T18A	SM6T18CA	600	4000	15.3	0.2	17.1
SM6T22A	SM6T22CA	600	4000	18.8	0.2	20.9
SM6T24A	SM6T24CA	600	4000	20.5	0.2	22.8
SM6T27A	SM6T27CA	600	4000	23.1	0.2	25.7
SM6T30A	SM6T30CA	600	4000	25.6	0.2	28.5
SM6T33A	SM6T33CA	600	4000	28.2	0.2	31.4
SM6T36A	SM6T36CA	600	4000	30.8	0.2	34.2
SM6T39A	SM6T39CA	600	4000	33.3	0.2	37.1
SM6T56A	SM6T56CA	600	4000	47.6	0.2	53.2
SM6T68A	SM6T68CA	600	4000	58.1	0.2	64.6
SM6T100A	SM6T100CA	600	4000	85.5	0.2	95
SM6T150A	SM6T150CA	600	4000	128	0.2	143
SM6T200A	SM6T200CA	600	4000	171	0.2	190
SM6T220A	SM6T220CA	600	4000	188	0.2	209
-	SM6T250CAY(*)	600	4000	213	0.2	213
SM6T6V8AY(*)	SM6T6V8CAY(*)	600	4000	5.8	20	6.45

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SM6T7V5AY(*)	SM6T7V5CAY(*)	600	4000	6.4	20	7.13
SM6T10AY(*)	SM6T10CAY(*)	600	4000	8.55	20	9.5
SM6T12AY(*)	SM6T12CAY(*)	600	4000	10.2	0.2	11.4
SM6T15AY(*)	SM6T15CAY(*)	600	4000	12.8	0.2	14.3
SM6T16V5AY(*)	SM6T16V5CAY(*)	600	4000	14.1	0.2	15.7
SM6T18AY(*)	SM6T18CAY(*)	600	4000	15.3	0.2	17.1
SM6T22AY(*)	SM6T22CAY(*)	600	4000	18.8	0.2	20.9
SM6T24AY(*)	SM6T24CAY(*)	600	4000	20.5	0.2	22.8
SM6T27AY(*)	SM6T27CAY(*)	600	4000	23.1	0.2	25.7
SM6T30AY(*)	SM6T30CAY(*)	600	4000	25.6	0.2	28.5
SM6T33AY(*)	SM6T33CAY(*)	600	4000	28.2	0.2	31.4
SM6T36AY(*)	SM6T36CAY(*)	600	4000	30.8	0.2	34.2
SM6T39AY(*)	SM6T39CAY(*)	600	4000	33.3	0.2	37.1
SM6T42AY(*)	SM6T42CAY(*)	600	4000	36	0.2	40
SM6T47AY(*)	SM6T47CAY(*)	600	4000	40	0.2	44.4
SM6T56AY(*)	SM6T56CAY(*)	600	4000	47.6	0.2	53.2
SM6T68AY(*)	SM6T68CAY(*)	600	4000	58.1	0.2	64.6
SM6T75AY(*)	SM6T75CAY(*)	600	4000	64.1	0.2	71.3
SM6T82AY(*)	SM6T82CAY(*)	600	4000	70	0.2	77.8
SMA6F5.0A-TR	-	600	4000	5	10	6.4
SMA6F12AVCL	-	600	4000	12	0.2	13.3
SMA6F13A-TR	-	600	4000	13	0.2	14.4
SMA6J5.0A-TR	SMA6J5.0CA-TR	600	4000	5	10	6.4
SMA6J6.0A-TR	SMA6J6.0CA-TR	600	4000	6	10	6.7

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SMA6J6.5A-TR	SMA6J6.5CA-TR	600	4000	6.5	10	7.2
SMA6J8.5A-TR	SMA6J8.5CA-TR	600	4000	8.5	10	9.4
SMA6J10A-TR	SMA6J10CA-TR	600	4000	10	0.2	11.1
SMA6J12A-TR	SMA6J12CA-TR	600	4000	12	0.2	13.3
SMA6J13A-TR	SMA6J13CA-TR	600	4000	13	0.2	14.4
SMA6J15A-TR	SMA6J15CA-TR	600	4000	15	0.2	16.7
SMA6J18A-TR	SMA6J18CA-TR	600	4000	18	0.2	20
SMA6J20A-TR	SMA6J20CA-TR	600	4000	20	0.2	22.2
SMA6J24A-TR	SMA6J24CA-TR	600	4000	24	0.2	26.7
SMA6J26A-TR	SMA6J26CA-TR	600	4000	26	0.2	28.9
SMA6J28A-TR	SMA6J28CA-TR	600	4000	28	0.2	31.1
SMA6J33A-TR	SMA6J33CA-TR	600	4000	33	0.2	36.7
SMA6J40A-TR	SMA6J40CA-TR	600	4000	40	0.2	44.4
SMA6J48A-TR	SMA6J48CA-TR	600	4000	48	0.2	53.3
SMA6J58A-TR	SMA6J58CA-TR	600	4000	58	0.2	64.4
SMA6J70A-TR	SMA6J70CA-TR	600	4000	70	0.2	77.8
SMA6J85A-TR	SMA6J85CA-TR	600	4000	85	0.2	94
SMA6J100A-TR	SMA6J100CA-TR	600	4000	100	0.2	111
SMA6J130A-TR	SMA6J130CA-TR	600	4000	130	0.2	144
SMA6J154A-TR	SMA6J154CA-TR	600	4000	154	0.2	171
SMA6J170A-TR	SMA6J170CA-TR	600	4000	170	0.2	189
SMA6J188A-TR	SMA6J188CA-TR	600	4000	188	0.2	209
SMA6T6V7AY(*)	SMA6T6V7CAY(*)	600	4000	5	20	6.4
SMA6T7V6AY(*)	SMA6T7V6CAY(*)	600	4000	6.5	20	7.2

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SMA6T10AY(*)	SMA6T10CAY(*)	600	4000	8.6	20	9.5
SMA6T12AY(*)	SMA6T12CAY(*)	600	4000	10.2	0.2	11.4
SMA6T14AY(*)	SMA6T14CAY(*)	600	4000	12	0.2	13.3
SMA6T15AY(*)	SMA6T15CAY(*)	600	4000	12.8	0.2	14.3
SMA6T18AY(*)	SMA6T18CAY(*)	600	4000	15.3	0.2	17.1
SMA6T22AY(*)	SMA6T22CAY(*)	600	4000	18.8	0.2	20.5
SMA6T24AY(*)	SMA6T24CAY(*)	600	4000	20.5	0.2	22.8
SMA6T28AY(*)	SMA6T28CAY(*)	600	4000	24	0.2	26.7
SMA6T30AY(*)	SMA6T30CAY(*)	600	4000	25.6	0.2	28.5
SMA6T33AY(*)	SMA6T33CAY(*)	600	4000	28.2	0.2	31.4
SMA6T39AY(*)	SMA6T39CAY(*)	600	4000	33.3	0.2	37.1
SMA6T47AY(*)	SMA6T47CAY(*)	600	4000	40	0.2	44.4
SMA6T56AY(*)	SMA6T56CAY(*)	600	4000	47.6	0.2	53.2
SMA6T68AY(*)	SMA6T68CAY(*)	600	4000	58.1	0.2	64.6
SMA6T82AY(*)	SMA6T82CAY(*)	600	4000	70	0.2	77.8
SMBJ5.0A-TR	SMBJ5.0CA-TR	600	4000	5	20	6.4
SMBJ6.0A-TR	SMBJ6.0CA-TR	600	4000	6	20	6.7
SMBJ6.5A-TR	SMBJ6.5CA-TR	600	4000	6.5	20	7.2
SMBJ8.5A-TR	SMBJ8.5CA-TR	600	4000	8.5	10	9.9
SMBJ10A-TR	SMBJ10CA-TR	600	4000	10	20	11.1
SMBJ12A-TR	SMBJ12CA-TR	600	4000	12	0.2	13.3
SMBJ13A-TR	SMBJ13CA-TR	600	4000	13	0.2	14.4
SMBJ15A-TR	SMBJ15CA-TR	600	4000	15	0.2	16.7
SMBJ16A-TR	SMBJ16CA-TR	600	4000	16	0.2	18.7

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SMBJ18A-TR	SMBJ18CA-TR	600	4000	18	0.2	20
SMBJ20A-TR	SMBJ20CA-TR	600	4000	20	0.2	23.4
SMBJ22A-TR	SMBJ22CA-TR	600	4000	22	0.2	24.4
SMBJ24A-TR	SMBJ24CA-TR	600	4000	24	0.2	26.7
SMBJ26A-TR	SMBJ26CA-TR	600	4000	26	0.2	28.9
SMBJ28A-TR	SMBJ28CA-TR	600	4000	28	0.2	31.1
SMBJ30A-TR	SMBJ30CA-TR	600	4000	30	0.2	33.3
SMBJ33A-TR	SMBJ33CA-TR	600	4000	33	0.2	36.7
SMBJ36A-TR	SMBJ36CA-TR	600	4000	36	0.2	40
SMBJ40A-TR	SMBJ40CA-TR	600	4000	40	0.2	44.4
SMBJ48A-TR	SMBJ48CA-TR	600	4000	48	0.2	53.3
SMBJ58A-TR	SMBJ58CA-TR	600	4000	58	0.2	64.4
SMBJ70A-TR	SMBJ70CA-TR	600	4000	70	0.2	77.8
SMBJ85A-TR	SMBJ85CA-TR	600	4000	85	0.2	94.4
SMBJ100A-TR	SMBJ100CA-TR	600	4000	100	0.2	117
SMBJ130A-TR	SMBJ130CA-TR	600	4000	130	0.2	144
SMBJ154A-TR	SMBJ154CA-TR	600	4000	154	0.2	171
SMBJ170A-TR	SMBJ170CA-TR	600	4000	170	0.2	189
SMBJ188A-TR	SMBJ188CA-TR	600	4000	188	0.2	209
1.5KE6V8A	1.5KE6V8CA	1500	10000	5.8	1000	6.8
1.5KE7V5A	1.5KE7V5CA	1500	10000	6.4	500	7.5
1.5KE12A	1.5KE12CA	1500	10000	10.2	1	12
1.5KE15A	1.5KE15CA	1500	10000	12.8	1	15
1.5KE18A	1.5KE18CA	1500	10000	15.3	1	18

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
1.5KE22A	1.5KE22CA	1500	10000	18.8	1	22
1.5KE24A	1.5KE24CA	1500	10000	20.5	1	24
1.5KE30A	1.5KE30CA	1500	10000	25.6	1	30
1.5KE33A	1.5KE33CA	1500	10000	28.2	1	33
1.5KE36A	1.5KE36CA	1500	10000	30.8	1	36
1.5KE39A	1.5KE39CA	1500	10000	33.3	1	39
1.5KE43A	1.5KE43CA	1500	10000	36.8	1	43
1.5KE47A	1.5KE47CA	1500	10000	40.2	1	47
1.5KE56A	1.5KE56CA	1500	10000	47.8	1	56
1.5KE62A	1.5KE62CA	1500	10000	53	1	62
1.5KE68A	1.5KE68CA	1500	10000	58.1	1	68
1.5KE75A	1.5KE75CA	1500	10000	64.1	1	75
1.5KE82A	1.5KE82CA	1500	10000	70.1	1	82
1.5KE100A	1.5KE100CA	1500	10000	85.5	1	100
1.5KE130A	1.5KE130CA	1500	10000	111	1	130
1.5KE180A	1.5KE180CA	1500	10000	154	1	180
1.5KE200A	1.5KE200CA	1500	10000	171	1	200
1.5KE220A	1.5KE220CA	1500	10000	188	1	220
1.5KE250A	1.5KE250CA	1500	10000	213	1	250
1.5KE300A	1.5KE300CA	1500	10000	256	1	300
1.5KE350A	1.5KE350CA	1500	10000	299	1	350
1.5KE400A	1.5KE400CA	1500	10000	342	1	400
1.5KE440A	1.5KE440CA	1500	10000	376	1	440
1.5KE10A	1.5KE10CA	1500	10000	-	8.55	-

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
1.5KE120A	1.5KE120CA	1500	10000	-	102	-
1.5KE150A	1.5KE150CA	1500	10000	-	128	-
1.5KE27A	1.5KE27CA	1500	10000	-	23.1	-
SM15T6V8A	SM15T6V8CA	1500	10000	5.8	500	6.45
SM15T7V5A	SM15T7V5CA	1500	10000	6.4	250	7.13
SM15T10A	SM15T10CA	1500	10000	8.55	10	9.5
SM15T12A	SM15T12CA	1500	10000	10.2	0.2	11.4
SM15T15A	SM15T15CA	1500	10000	12.8	0.2	14.3
SM15T18A	SM15T18CA	1500	10000	15.3	0.2	17.1
SM15T22A	SM15T22CA	1500	10000	18.8	0.2	20.9
SM15T24A	SM15T24CA	1500	10000	20.5	0.2	22.8
SM15T27A	SM15T27CA	1500	10000	23.1	0.2	25.7
SM15T30A	SM15T30CA	1500	10000	25.6	0.2	28.5
SM15T33A	SM15T33CA	1500	10000	28.2	0.2	31.4
SM15T36A	SM15T36CA	1500	10000	30.8	0.2	34.2
SM15T39A	SM15T39CA	1500	10000	33.3	0.2	37.1
SM15T68A	SM15T68CA	1500	10000	58.1	0.2	64.6
SM15T75A	SM15T75CA	1500	10000	64.1	0.2	71.3
SM15T100A	SM15T100CA	1500	10000	85.5	0.2	95
SM15T150A	SM15T150CA	1500	10000	128	0.2	143
SM15T200A	SM15T200CA	1500	10000	171	0.2	190
SM15T220A	SM15T220CA	1500	10000	188	0.2	209
SM15T6V8AY(*)	SM15T6V8CAY(*)	1500	10000	5.8	500	6.45
SM15T7V5AY(*)	SM15T7V5CAY(*)	1500	10000	6.4	250	7.13

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SM15T10AY(*)	SM15T10CAY(*)	1500	10000	8.55	10	9.5
SM15T12AY(*)	SM15T12CAY(*)	1500	10000	10.2	0.2	11.4
SM15T15AY(*)	SM15T15CAY(*)	1500	10000	12.8	0.2	14.3
SM15T18AY(*)	SM15T18CAY(*)	1500	10000	15.3	0.2	17.1
SM15T22AY(*)	SM15T22CAY(*)	1500	10000	18.8	0.2	20.9
SM15T24AY(*)	SM15T24CAY(*)	1500	10000	20.5	0.2	22.8
SM15T27AY(*)	SM15T27CAY(*)	1500	10000	23.1	0.2	25.7
SM15T30AY(*)	SM15T30CAY(*)	1500	10000	25.6	0.2	28.5
SM15T33AY(*)	SM15T33CAY(*)	1500	10000	28.2	0.2	31.4
SM15T36AY(*)	SM15T36CAY(*)	1500	10000	30.8	0.2	34.2
SM15T39AY(*)	SM15T39CAY(*)	1500	10000	33.3	0.2	37.1
SM15T47AY(*)	SM15T47CAY(*)	1500	10000	40.2	0.2	44.7
SM15T56AY(*)	SM15T56CAY(*)	1500	10000	48	0.2	53.3
SM15T68AY(*)	SM15T68CAY(*)	1500	10000	58.1	0.2	64.6
SM15T75AY(*)	SM15T75CAY(*)	1500	10000	64.1	0.2	71.3
SM15T82AY(*)	SM15T82CAY(*)	1500	10000	70	0.2	77.8
SMCJ5.0A-TR	SMCJ5.0CA-TR	1500	10000	5	500	6.4
SMCJ6.0A-TR	SMCJ6.0CA-TR	1500	10000	6	500	6.7
SMCJ6.5A-TR	SMCJ6.5CA-TR	1500	10000	6.5	250	7.2
SMCJ8.5A-TR	SMCJ8.5CA-TR	1500	10000	8.5	10	9.4
SMCJ10A-TR	SMCJ10CA-TR	1500	10000	10	0.2	11.1
SMCJ12A-TR	SMCJ12CA-TR	1500	10000	12	0.2	13.3
SMCJ13A-TR	SMCJ13CA-TR	1500	10000	13	0.2	14.4
SMCJ15A-TR	SMCJ15CA-TR	1500	10000	15	0.2	16.7

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SMCJ18A-TR	SMCJ18CA-TR	1500	10000	18	0.2	20
SMCJ20A-TR	SMCJ20CA-TR	1500	10000	20	0.2	22.2
SMCJ22A-TR	SMCJ22CA-TR	1500	10000	22	0.2	24.4
SMCJ24A-TR	SMCJ24CA-TR	1500	10000	24	0.2	26.7
SMCJ26A-TR	SMCJ26CA-TR	1500	10000	26	0.2	28.9
SMCJ28A-TR	SMCJ28CA-TR	1500	10000	28	0.2	31.1
SMCJ30A-TR	SMCJ30CA-TR	1500	10000	30	0.2	33.3
SMCJ33A-TR	SMCJ33CA-TR	1500	10000	33	0.2	36.7
SMCJ40A-TR	SMCJ40CA-TR	1500	10000	40	0.2	44.4
SMCJ48A-TR	SMCJ48CA-TR	1500	10000	48	0.2	53.3
SMCJ58A-TR	SMCJ58CA-TR	1500	10000	58	0.2	64.4
SMCJ70A-TR	SMCJ70CA-TR	1500	10000	70	0.2	77.8
SMCJ85A-TR	SMCJ85CA-TR	1500	10000	85	0.2	94.4
SMCJ130A-TR	SMCJ130CA-TR	1500	10000	130	0.2	144.4
SMCJ154A-TR	SMCJ154CA-TR	1500	10000	154	0.2	171.1
SMCJ170A-TR	SMCJ170CA-TR	1500	10000	170	0.2	189.0
SMCJ188A-TR	SMCJ188CA-TR	1500	10000	188	0.2	209.0
SM5908	-	1500	-	5	300	6
1N5908	-	1500	-	5	300	-
SMC30J5.0A	SMC30J5.0CA	3000	28000	5	500	6.4
SMC30J6.0A	SMC30J6.0CA	3000	28000	6	500	6.7
SMC30J6.5A	SMC30J6.5CA	3000	28000	6.5	250	7.2
SMC30J8.5A	SMC30J8.5CA	3000	28000	8.5	10	9.4
SMC30J10A	SMC30J10CA	3000	28000	10	0.2	11.1

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SMC30J12A	SMC30J12CA	3000	28000	12	0.2	13.3
SMC30J13A	SMC30J13CA	3000	28000	13	0.2	14.4
SMC30J15A	SMC30J15CA	3000	28000	15	0.2	16.7
SMC30J16A	SMC30J16CA	3000	28000	16	0.2	17.8
SMC30J18A	SMC30J18CA	3000	28000	18	0.2	20.0
SMC30J20A	SMC30J20CA	3000	28000	20	0.2	22.2
SMC30J22A	SMC30J22CA	3000	28000	22	0.2	24.4
SMC30J24A	SMC30J24CA	3000	28000	24	0.2	26.7
SMC30J26A	SMC30J26CA	3000	28000	26	0.2	28.9
SMC30J28A	SMC30J28CA	3000	28000	28	0.2	31.1
SMC30J30A	SMC30J30CA	3000	28000	30	0.2	33.3
SMC30J33A	SMC30J33CA	3000	28000	33	0.2	36.7
SMC30J36A	SMC30J36CA	3000	28000	36	0.2	40.0
SMC30J40A	SMC30J40CA	3000	28000	40	0.2	44.4
SMC30J48A	SMC30J48CA	3000	28000	48	0.2	53.3
SM30T6.8AY(*)	SM30T6.8CAY(*)	3000	20000	5	500	6.45
SM30T7.5AY(*)	SM30T7.5CAY(*)	3000	20000	6.5	250	7.13
SM30T10AY(*)	SM30T10CAY(*)	3000	20000	8.5	10	9.5
SM30T12AY(*)	SM30T12CAY(*)	3000	20000	10	0.2	11.4
SM30T15AY(*)	SM30T15CAY(*)	3000	20000	13	0.2	14.3
SM30T18AY(*)	SM30T18CAY(*)	3000	20000	15	0.2	16.7
SM30T19AY(*)	SM30T19CAY(*)	3000	20000	16	0.2	17.8
SM30T21AY(*)	SM30T21CAY(*)	3000	20000	18	0.2	20.0
SM30T23AY(*)	SM30T23CAY(*)	3000	20000	20	0.2	22.2

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
SM30T26AY(*)	SM30T26CAY(*)	3000	20000	22	0.2	24.4
SM30T28AY(*)	SM30T28CAY(*)	3000	20000	24	0.2	26.7
SM30T30AY(*)	SM30T30CAY(*)	3000	20000	26	0.2	28.9
SM30T33AY(*)	SM30T33CAY(*)	3000	20000	28	0.2	31.1
SM30T35AY(*)	SM30T35CAY(*)	3000	20000	30	0.2	33.3
SM30T39AY(*)	SM30T39CAY(*)	3000	20000	33	0.2	36.6
SM30T42AY(*)	SM30T42CAY(*)	3000	20000	36	0.2	40.0
SM30T47AY(*)	SM30T47CAY(*)	3000	20000	40	0.2	44.4
SM30T56AY(*)	SM30T56CAY(*)	3000	20000	48	0.2	53.2
BZW50-10	BZW50-10B	5000	60000	10	5	11.1
BZW50-12	BZW50-12B	5000	60000	12	5	13.3
BZW50-15	BZW50-15B	5000	60000	15	5	16.6
BZW50-18	BZW50-18B	5000	60000	18	5	20.0
BZW50-22	BZW50-22B	5000	60000	22	5	24.4
BZW50-27	BZW50-27B	5000	60000	27	5	30.0
BZW50-33	BZW50-33B	5000	60000	33	5	36.6
BZW50-39	BZW50-39B	5000	60000	39	5	43.3
BZW50-47	BZW50-47B	5000	60000	47	5	52.0
BZW50-56	BZW50-56B	5000	60000	56	5	62.2
BZW50-68	BZW50-68B	5000	60000	68	5	75.6
BZW50-82	BZW50-82B	5000	60000	82	5	91.1
BZW50-100	BZW50-100B	5000	60000	100	5	111.1
BZW50-120	BZW50-120B	5000	60000	120	5	133.3
BZW50-150	BZW50-150B	5000	60000	150	5	166.6

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
BZW50-180	BZW50-180B	5000	60000	180	5	200
LDP01-26AY	-	5000	60000	22	1	24.4
LDP01-28AY	-	5000	60000	24	1	26.7
LDP01-30AY	-	5000	60000	27	1	28.9
LDP01-33AY	-	5000	60000	28	1	31.7
LDP01-35AY	-	5000	60000	30	1	33.3
LDP01-39AY	-	5000	60000	33	1	36.7
LDP01-42AY	-	5000	60000	36	1	40
LDP01-47AY	-	5000	60000	40	1	44.4
LDP01-50AY	-	5000	60000	43	1	47.8
LDP01-56AY	-	5000	60000	48	1	53.3
LDP01-68AY	-	5000	60000	58	1	64.4
LDP01-82AY	-	5000	60000	70	1	77.8
LDP24A	-	-	-	24	50	25
-	LDP35CA	-	-	35	5	36
STRVS118X02C	-	-	-	85	0.2	95
STRVS142X02F	-	-	-	102	1	114
STRVS185X02E	-	-	-	128	0.2	143
STRVS182X02F	-	-	-	128	1	143
STRVS185X02B	-	-	-	128	0.2	143
STRVS225X02E	-	-	-	154	0.5	171
STRVS222X02F	-	-	-	154	1	171
STRVS241X02E	-	-	-	171	0.5	190
STRVS252X02F	-	-	-	171	1	190

Note: (*) Automotive-grade (AEC-Q101 qualified)

Part number Unidirectional	Part number Bidirectional	Peak pulse power (PPP) 10/1000 μ s 25 °C	Peak pulse current PPP 8/20 μ s	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM} @ 25 °C	Breakdown V_{BR} @
		(W)	(W)	(V)	max (μ A)	Min (V)
STRVS248X02C	-	-	-	171	0.5	190
STRVS280X02F	-	-	-	188	1	209

ITU-T K2x & GR-1089 Protection

Part number	Directionality	Peak pulse power (IPP) 10/1000 μ s GR-1089	Peak pulse current (IPP) 5/310 μ s ITU-T K20/21	Peak pulse current (IPP) 2/10 μ s GR-1089	Stand-off voltage V_{RM}	Leakage current I_{RM} @ V_{RM}
		(A)	(A)	(A)	(V)	Max (μ A)
SMP30-62	Bidirectional	30	40	100	62	5
SMP30-68	Bidirectional	30	40	100	68	5
SMP30-100	Bidirectional	30	40	100	100	5
SMP30-120	Bidirectional	30	40	100	120	5
SMP30-130	Bidirectional	30	40	100	130	5
SMP30-180	Bidirectional	30	40	100	180	5
SMP30-200	Bidirectional	30	40	100	200	5
SMP30-220	Bidirectional	30	40	100	220	5
SMP30-240	Bidirectional	30	40	100	240	5
SMP30-270	Bidirectional	30	40	100	270	5
TPA62	Bidirectional	50	65	100	62	5
TPA100	Bidirectional	50	65	100	100	5
TPA120	Bidirectional	50	65	100	120	5
TPA130	Bidirectional	50	65	100	130	5
TPA180	Bidirectional	50	65	100	180	5
TPA200	Bidirectional	50	65	100	200	5
TPA220	Bidirectional	50	65	100	220	5
TPA240	Bidirectional	50	65	100	240	5
TPA270	Bidirectional	50	65	100	270	5
SMTPA62	Bidirectional	50	65	100	62	5
SMTPA68	Bidirectional	50	65	100	68	5
SMTPA100	Bidirectional	50	65	100	100	5

Part number	Directionality	Peak pulse power (IPP) 10/1000 μ s GR-1089	Peak pulse current (IPP) 5/310 μ s ITU-T K20/21	Peak pulse current (IPP) 2/10 μ s GR-1089	Stand-off voltage V_{RM}	Leakage cu I_{RM} @ V_{RM}
		(A)	(A)	(A)	(V)	Max (μ A)
SMTPA120	Bidirectional	50	65	100	120	5
SMTPA130	Bidirectional	50	65	100	130	5
SMTPA180	Bidirectional	50	65	100	180	5
SMTPA200	Bidirectional	50	65	100	200	5
SMTPA220	Bidirectional	50	65	100	220	5
SMTPA240	Bidirectional	50	65	100	240	5
SMTPA270	Bidirectional	50	65	100	270	5
SMTPA320	Bidirectional	50	65	100	320	5
SMP50-62	Bidirectional	50	65	100	62	5
SMP50-68	Bidirectional	50	65	100	68	5
SMP50-100	Bidirectional	50	65	100	100	5
SMP50-120	Bidirectional	50	65	100	120	5
SMP50-130	Bidirectional	50	65	100	130	5
SMP50-180	Bidirectional	50	65	100	180	5
SMP50-200	Bidirectional	50	65	100	200	5
SMP50-220	Bidirectional	50	65	100	220	5
SMP50-240	Bidirectional	50	100	65	240	5
SMP50-270	Bidirectional	50	100	65	270	5
SMP50-320	Bidirectional	50	100	65	320	5
SMP75-8	Bidirectional	75	120	250	8	5
SMP80MC-120	Bidirectional	80	120	250	120	5
SMP80MC-140	Bidirectional	80	120	250	140	5
SMP80MC-160	Bidirectional	80	120	250	160	5
SMP80MC-200	Bidirectional	80	120	250	200	5

Part number	Directionality	Peak pulse power (IPP) 10/1000 μ s GR-1089	Peak pulse current (IPP) 5/310 μ s ITU-T K20/21	Peak pulse current (IPP) 2/10 μ s GR-1089	Stand-off voltage V_{RM}	Leakage cu I_{RM} @ V_{RM}
		(A)	(A)	(A)	(V)	Max (μ A)
SMP80MC-230	Bidirectional	80	120	250	230	5
SMP80MC-270	Bidirectional	80	120	250	270	5
SMP80MC-320	Bidirectional	80	120	250	320	5
SMP100LC-8	Bidirectional	100	150	500	8	5
SMP100LC-35	Bidirectional	100	150	500	35	5
SMP100LC-65	Bidirectional	100	150	500	65	5
SMP100LC-90	Bidirectional	100	150	500	90	5
SMP100LC-120	Bidirectional	100	150	500	120	5
SMP100LC-140	Bidirectional	100	150	500	140	5
SMP100LC-160	Bidirectional	100	150	500	160	5
SMP100LC-200	Bidirectional	100	150	500	200	5
SMP100LC-230	Bidirectional	100	150	500	230	5
SMP100LC-25	Bidirectional	100	150	500	25	5
SMP100LC-270	Bidirectional	100	150	500	270	5
SMP100LC-320	Bidirectional	100	150	500	320	5
SMP100LC-360	Bidirectional	100	150	500	360	5
SMP100LC-400	Bidirectional	100	150	500	400	5
SMP100MC-140	Bidirectional	100	150	500	140	5
SMP100MC-160	Bidirectional	100	150	500	160	5
SMP100MC-200	Bidirectional	100	150	500	200	5
SMP100MC-230	Bidirectional	100	150	500	230	5
SMP100MC-270	Bidirectional	100	150	500	270	5
SMP100MC-320	Bidirectional	100	150	500	320	5
SMP100MC-360	Bidirectional	100	150	500	360	5

Part number	Directionality	Peak pulse power (IPP) 10/1000 μ s GR-1089	Peak pulse current (IPP) 5/310 μ s ITU-T K20/21	Peak pulse current (IPP) 2/10 μ s GR-1089	Stand-off voltage V_{RM}	Leakage cur I_{RM} @ V_{RM}
		(A)	(A)	(A)	(V)	Max (μ A)
SMP100MC-400	Bidirectional	100	150	500	400	5
SMP0720SCMC	Bidirectional	100	150	500	65	5
SMP0900SCMC	Bidirectional	100	150	500	75	5
SMP1100SCMC	Bidirectional	100	150	500	90	5
SMP1300SCMC	Bidirectional	100	150	500	120	5
SMP1500SCMC	Bidirectional	100	150	500	140	5
SMP1800SCMC	Bidirectional	100	150	500	170	5
SMP2100SCMC	Bidirectional	100	150	500	180	5
SMP2300SCMC	Bidirectional	100	150	500	190	5
SMP2600SCMC	Bidirectional	100	150	500	220	5
SMP3100SCMC	Bidirectional	100	150	500	275	5
ETP01-1621RL	Bidirectional	-	37.5	100	16	1
ETP01-2821RL	Bidirectional	-	37.5	100	28	1
THBT15011D	Bidirectional	30	40	-	135	5
THBT20011D	Bidirectional	30	40	-	180	5
TPI12011N	Bidirectional	30	40	90	105	10
TPI8011N	Bidirectional	30	40	90	70	10
TPN3021	Bidirectional	30	50	200	28	4
DSL01-008SC5	Bidirectional	100	150	500	8	0.5
DSL01-010SC5	Bidirectional	100	150	500	10.5	0.5
DSL01-016SC5	Bidirectional	100	150	500	16	0.5
DSL01-024SC5	Bidirectional	100	150	500	24	0.5
DSL02-005SC5	Bidirectional	100	150	500	5	0.5
DSL02-008SC5	Bidirectional	100	150	500	8	0.5

Part number	Directionality	Peak pulse power (IPP) 10/1000 μ s GR-1089	Peak pulse current (IPP) 5/310 μ s ITU-T K20/21	Peak pulse current (IPP) 2/10 μ s GR-1089	Stand-off voltage V_{RM}	Leakage cu I_{RM} @ V_{RM}
		(A)	(A)	(A)	(V)	Max (μ A)
DSL02-010SC5	Bidirectional	100	150	500	10	0.5
DSL03-010SC6	Bidirectional	100	150	500	10	0.2
DSL03-022SC6	Bidirectional	100	150	500	24	0.2
DSL03-024SC6	Bidirectional	100	150	500	24	0.2
DSL04-005SC6	Bidirectional	100	150	500	5	0.2
DSL04-008SC6	Bidirectional	100	150	500	8	0.2
DSL04-010SC6	Bidirectional	100	150	500	10	0.2
DSL04-012SC6	Bidirectional	100	150	500	12	0.2
DSL04-016SC6	Bidirectional	100	150	500	16	0.2
DSL04-018SC6	Bidirectional	100	150	500	18	0.2
DSL04-020SC6	Bidirectional	100	150	500	20	0.2
DSL04-022SC6	Bidirectional	100	150	500	22	0.2
DSL04-024SC6	Bidirectional	100	150	500	24	0.2
DSL05-024SC6	Bidirectional	100	150	500	24	0.05
LCDP1521SRL	Unidirectional	2 x 25	2 x 40	2 x 90	175	5
LCP1521SRL	Unidirectional	30	40	150	150	5
LCP1531RL	Unidirectional	-	37.5	-	150	5
LCP03-1501RL	Bidirectional	30	60	130	-53/83	5
TPP25011	Unidirectional	30	40	75	60	6
LCP02-150B1RL	Bidirectional	30	45	100	-120/+120	5
LCP12-150B1RL	Bidirectional	45	75	150	-120/+120	5
LCP22-150B1RL	Bidirectional	45	75	150	-120/+120	6
LCP3121RL	Bidirectional	100	150	200	-100/+100	0.5
LCP154DJF	Unidirectional	100	150	500	-175	5

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