

SPECIFICATION SHEET NO.	S1017- SMAJ10CAL0S001	
ORIGINAL MFG/PART NO.	 LGE Diodes/SMAJ10CA-L	
NEXTGEN PART CODE	SMAJ10CAL0S001	Indicate This Code For RFQ /Order
DATE	Oct. 17, 2025	
REVISION	A4	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	SMD Transient Voltage Suppressor (TVs) Diodes, SMAJ L Series Case SMA/DO-214AC, 2 Pads, Bidirectional Type, Peak Reverse Voltage (VRWM) 10V , Peak Pulse Power (PPP): 400 Watts, Reverse Surge Current (IPP): 23.53A Max. Operating Junction Temp. Range -55°C ~+150°C Package in Tape/Reel, 5000pcs/Reel RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)	
CUSTOMER		
CUSTOMER PART NUMBER		
CROSS REF. PART NUMBER		
MEMO		

VENDOR APPROVE			
Issued/Checked/Approved			
Effective Date: Oct. 17, 2025			

CUSTOMER APPROVE	
Date:	

MAIN FEATURE

- Glass Passivated Chip
- 400W Peak Pulse Power Capability With a 10/1000 μ s Waveform, Repetitive Rate (Duty Cycle):0.01 %
- Uni-Directional and Bi-directional Polarity Option
- Low Leakage
- Excellent Clamping Capability
- Very Fast Response Time
- Short Lead Time
- Cross Competitors Parts and More.
- RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)



*Image shown is a representation only.
Exact specifications should be obtained
from the product dimension.*



APPLICATION

- I/O Interface
- AC/DC Power Supply
- Low Frequency Signal Transmission Line (RS232, RS485, etc.)

ELECTRICAL CHARACTERISTICS

- See Page 5 ~Page 17 For Different Part Code
- All Parameters are Subject To NextGen Components' Final Confirmation

HOW TO ORDER

- Please Follow Up Part Code Guide And Indicate NextGen Part Code SMAJ10CAL0S001 For RFQ and Order.

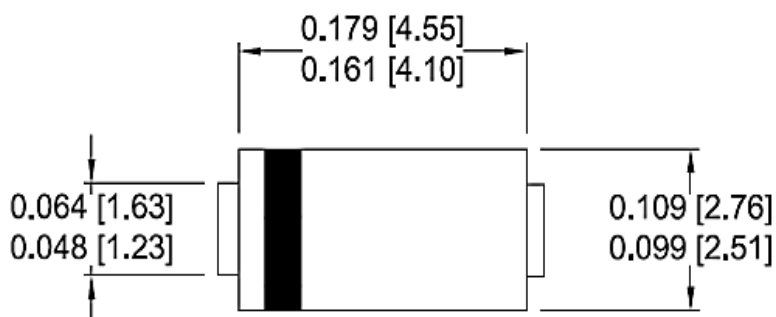
PART CODE GUIDE

RFQ
[Request For Quotation](#)

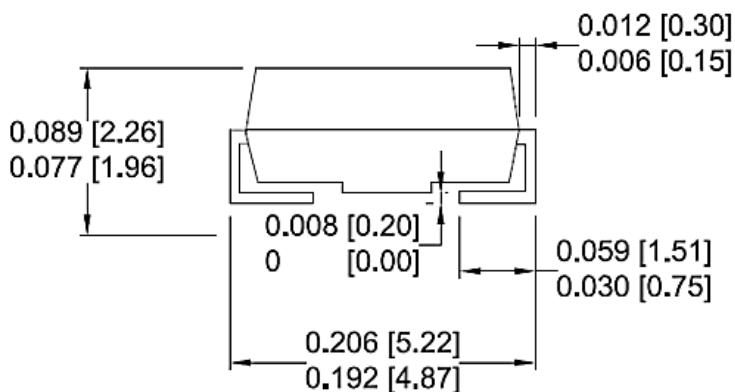
CODE	NAME	KEY SPECIFICATION OPTION
SMAJ	Product Series Code	SMD Transient Voltage Suppressors (TVs) Diodes, Case SMA/DO-214AC, 2 Pads, SMAJ L Series
10CA	Parameters Code	10CA: Working Peak Reverse Voltage 10V, Bidirectional Polarity Type Reverse Surge Current: 23.53A Max.
L0S001	Internal Control Code	Letter or Digits (A~Z, a~z or 0~9)
XX	Special/Custom Parameters Code	Letter or Digits (A~Z, a~z or 1~9) for Special Parametric; Blank: N/A

DIMENSION- Unit: Inch [mm], Case SMA/DO-214AC Outline

Top View



Side View



MECHANICAL DATA

CASE	EXPOXY	LEAD	POLARITY	MOUNTING POSITION	MARKING
JEDEC SMA/DO-214AC Molded Plastic Body	UL 94V-0 Rate Flame Retardant	Solderable per MIL-STD 750, Method 2026	Color Band Denotes Cathode End Except Bipolar	Any	See Marking Code List

MAX. RATING & CHARACTERISTICS - Ratings at 25°C ambient temperature unless otherwise specified.

PARAMETER	SYMBOLS	VALUE	UNITS
Peak Power Dissipation with 10/1000μs Waveform (Note 1)	P _{pp}	400	W
Peak Pulse Current with a 10/1000μs Waveform (Note 1)	I _{pp}	See Page 6~ Page 17	A
Power Dissipation On Infinite Heatsink at T _L = 75 °C	P _D	1.0	W
Peak Forward Surge Current 8.3ms Single Half Sine- Wave Unidirectional Type Only (Note 2)	I _{FSM}	40	A
Maximum instantaneous forward voltage at 25A for Unidirectional Type Only (Note 3)	V _F	3.5/5.0	V
Operating Junction And Storage Temperature Range	T _J , T _{STG}	-55 ~ +150	°C

Note

1. Non-repetitive Current Pulse Per Fig.5 And Derated Above T_A= 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. V_F<3.5V for devices of V_{BR}<200V and V_F<5.0V for devices of V_{BR}>201V

UNIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C

Part Code	Working Peak Reverse Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage	Max. Reverse Surge Current	Max. Clamping Voltage	Marking Code
		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	I _{PP}	V _C @ I _{PP}	
	V	V	V	mA	µA	A	V	
SMAJ050L00S001	5	6.40	7.30	10	800	41.67	9.6	AD
SMAJ050AL0S001	5	6.40	7.00	10	800	43.48	9.2	AE
SMAJ060L00S001	6	6.67	8.15	10	800	35.09	11.4	AF
SMAJ060AL0S001	6	6.67	7.37	10	800	38.83	10.3	AG
SMAJ065L00S001	6.5	7.22	8.82	10	500	32.52	12.3	AH
SMAJ065AL0S001	6.5	7.22	7.98	10	500	35.71	11.2	AK
SMAJ070L00S001	7	7.78	9.51	10	200	30.08	13.3	AL
SMAJ070AL0S001	7	7.78	8.60	10	200	33.33	12.0	AM
SMAJ075L00S001	7.5	8.33	10.20	1	100	27.97	14.3	AN
SMAJ075AL0S001	7.5	8.33	9.21	1	100	31.01	12.9	AP
SMAJ080L00S001	8	8.89	10.90	1	50	26.67	15.0	AQ
SMAJ080AL0S001	8	8.89	9.83	1	50	29.41	13.6	AR
SMAJ085L00S001	8.5	9.44	11.50	1	10	25.16	15.9	AS
SMAJ085AL0S001	8.5	9.44	10.40	1	10	27.78	14.4	AT
SMAJ090L00S001	9	10.00	12.20	1	5	23.67	16.9	AU
SMAJ090AL0S001	9	10.00	11.10	1	5	25.97	15.4	AV
SMAJ10L000S001	10	11.10	13.60	1	5	21.28	18.8	AW
SMAJ10AL00S001	10	11.10	12.30	1	5	23.53	17.0	AX
SMAJ11L000S001	11	12.20	14.90	1	1	19.90	20.1	AY
SMAJ11AL00S001	11	12.20	13.50	1	1	21.98	18.2	AZ

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		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	VC @ IPP	
	V	V	V	mA	µA	A	V	
SMAJ12L000S001	12	13.30	16.30	1	1	18.18	22.0	BD
SMAJ12AL00S001	12	13.30	14.70	1	1	20.10	19.9	BE
SMAJ13L000S001	13	14.40	17.60	1	1	16.81	23.8	BF
SMAJ13AL00S001	13	14.40	15.90	1	1	18.60	21.5	BG
SMAJ14L000S001	14	15.60	19.10	1	1	15.50	25.8	BH
SMAJ14AL00S001	14	15.60	17.20	1	1	17.24	23.2	BK
SMAJ15L000S001	15	16.70	20.40	1	1	14.87	26.9	BL
SMAJ15AL00S001	15	16.70	18.50	1	1	16.39	24.4	BM
SMAJ16L000S001	16	17.80	21.80	1	1	13.89	28.8	BN
SMAJ16AL00S001	16	17.80	19.70	1	1	15.38	26.0	BP
SMAJ17L000S001	17	18.90	23.10	1	1	13.11	30.5	BQ
SMAJ17AL00S001	17	18.90	20.90	1	1	14.49	27.6	BR
SMAJ18L000S001	18	20.00	24.40	1	1	12.42	32.2	BS
SMAJ18AL00S001	18	20.00	22.10	1	1	13.70	29.2	BT
SMAJ19L000S001	19	21.13	25.76	1	1	11.76	34.0	BA
SMAJ19AL00S001	19	21.10	23.30	1	1	13.00	30.8	BB
SMAJ20L000S001	20	22.20	27.10	1	1	11.17	35.8	BU
SMAJ20AL00S001	20	22.20	24.50	1	1	12.35	32.4	BV
SMAJ22L000S001	22	24.40	29.80	1	1	10.15	39.4	BW
SMAJ22AL00S001	22	24.40	26.90	1	1	11.27	35.5	BX

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		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	VC @ IPP	
	V	V	V	mA	µA	A	V	
SMAJ24L000S001	24	26.70	32.60	1	1	9.30	43.0	BY
SMAJ24AL00S001	24	26.70	29.50	1	1	10.28	38.9	BZ
SMAJ26L000S001	26	28.90	35.30	1	1	8.58	46.6	CD
SMAJ26AL00S001	26	28.90	31.90	1	1	9.50	42.1	CE
SMAJ28L000S001	28	31.10	38.00	1	1	8.00	50.0	CF
SMAJ28AL00S001	28	31.10	34.40	1	1	8.81	45.4	CG
SMAJ30L000S001	30	33.30	40.70	1	1	7.48	53.5	CH
SMAJ30AL00S001	30	33.30	36.80	1	1	8.26	48.4	CK
SMAJ33L000S001	33	36.70	44.90	1	1	6.78	59.0	CL
SMAJ33AL00S001	33	36.70	40.60	1	1	7.50	53.3	CM
SMAJ36L000S001	36	40.00	48.90	1	1	6.22	64.3	CN
SMAJ36AL00S001	36	40.00	44.20	1	1	6.88	58.1	CP
SMAJ40L000S001	40	44.40	54.30	1	1	5.60	71.4	CQ
SMAJ40AL00S001	40	44.40	49.10	1	1	6.20	64.5	CR
SMAJ43L000S001	43	47.80	58.40	1	1	5.22	76.7	CS
SMAJ43AL00S001	43	47.80	52.80	1	1	5.76	69.4	CT
SMAJ45L000S001	45	50.00	61.10	1	1	4.98	80.3	CU
SMAJ45AL00S001	45	50.00	55.30	1	1	5.50	72.7	CV
SMAJ48L000S001	48	53.30	65.10	1	1	4.68	85.5	CW
SMAJ48AL00S001	48	53.30	58.90	1	1	5.17	77.4	CX

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		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	VC @ IPP	
	V	V	V	mA	µA	A	V	
SMAJ51L000S001	51	56.70	69.30	1	1	4.39	91.1	CY
SMAJ51AL00S001	51	56.70	62.70	1	1	4.85	82.4	CZ
SMAJ54L000S001	54	60.00	73.30	1	1	4.15	96.3	RD
SMAJ54AL00S001	54	60.00	66.30	1	1	4.59	87.1	RE
SMAJ58L000S001	58	64.40	78.70	1	1	3.88	103.0	RF
SMAJ58AL00S001	58	64.40	71.20	1	1	4.27	93.6	RG
SMAJ60L000S001	60	66.70	81.50	1	1	3.74	107.0	RH
SMAJ60AL00S001	60	66.70	73.70	1	1	4.13	96.8	RK
SMAJ64L000S001	64	71.10	86.90	1	1	3.51	114.0	RL
SMAJ64AL00S001	64	71.10	78.60	1	1	3.88	103.0	RM
SMAJ70L000S001	70	77.80	95.10	1	1	3.20	125.0	RN
SMAJ70AL00S001	70	77.80	86.00	1	1	3.54	113.0	RP
SMAJ75L000S001	75	83.30	102.00	1	1	2.99	134.0	RQ
SMAJ75AL00S001	75	83.30	92.10	1	1	3.31	121.0	RR
SMAJ78L000S001	78	86.70	106.00	1	1	2.88	139.0	RS
SMAJ78AL00S001	78	86.70	95.80	1	1	3.17	126.0	RT
SMAJ80L000S001	80	88.96	108.80	1	1	2.79	143.2	RA
SMAJ80AL00S001	80	88.80	97.60	1	1	3.09	129.6	RB
SMAJ85L000S001	85	94.40	115.00	1	1	2.65	151.0	RU
SMAJ85AL00S001	85	94.40	104.00	1	1	2.92	137.0	RV

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		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	VC @ IPP	
	V	V	V	mA	µA	A	V	
SMAJ90L000S001	90	100.00	122.00	1	1	2.50	160.0	RW
SMAJ90AL00S001	90	100.00	111.00	1	1	2.74	146.0	RX
SMAJ100L00S001	100	111.00	136.00	1	1	2.23	179.0	RY
SMAJ100AL0S001	100	111.00	123.00	1	1	2.47	162.0	RZ
SMAJ110L00S001	110	122.00	149.00	1	1	2.04	196.0	SD
SMAJ110AL0S001	110	122.00	135.00	1	1	2.26	177.0	SE
SMAJ120L00S001	120	133.00	163.00	1	1	1.87	214.0	SF
SMAJ120AL0S001	120	133.00	147.00	1	1	2.07	193.0	SG
SMAJ130L00S001	130	144.00	176.00	1	1	1.73	231.0	SH
SMAJ130AL0S001	130	144.00	159.00	1	1	1.91	209.0	SK
SMAJ140L00S001	140	155.68	190.40	1	1	1.60	250.6	SA
SMAJ140AL0S001	140	155.00	171.00	1	1	1.76	226.8	SB
SMAJ150L00S001	150	167.00	204.00	1	1	1.49	268.0	SL
SMAJ150AL0S001	150	167.00	185.00	1	1	1.65	243.0	SM
SMAJ160L00S001	160	178.00	218.00	1	1	1.39	287.0	SN
SMAJ160AL0S001	160	178.00	197.00	1	1	1.54	259.0	SP
SMAJ170L00S001	170	189.00	231.00	1	1	1.32	304.0	SQ
SMAJ170AL0S001	170	189.00	209.00	1	1	1.45	275.0	SR
SMAJ180L00S001	180	200.16	244.80	1	1	1.24	322.2	SS
SMAJ180AL0S001	180	200.00	220.00	1	1	1.37	291.6	ST

UNIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C

[illegible]

BIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C

Part Code	Working Peak Reverse Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage	Max. Reverse Surge Current	Max. Clamping Voltage	Marking Code
		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	Vc @ IPP	
	V	V	V	mA	µA	A	V	
SMAJ050CL0S001	5	6.40	7.30	10	800	41.67	9.6	WD
SMAJ050CAL0S001	5	6.40	7.00	10	800	43.48	9.2	WE
SMAJ060CL0S001	6	6.67	8.15	10	800	35.09	11.4	WF
SMAJ060CAL0S001	6	6.67	7.37	10	800	38.83	10.3	WG
SMAJ065CL0S001	6	7.22	8.82	10	500	32.52	12.3	WH
SMAJ065CAL0S001	6	7.22	7.98	10	500	35.71	11.2	WK
SMAJ070CL0S001	7	7.78	9.51	10	200	30.08	13.3	WL
SMAJ070CAL0S001	7	7.78	8.60	10	200	33.33	12.0	WM
SMAJ075CL0S001	7	8.33	10.20	1	100	27.97	14.3	WN
SMAJ075CAL0S001	7	8.33	9.21	1	100	31.01	12.9	WP
SMAJ080CL0S001	8	8.89	10.90	1	50	26.67	15.0	WQ
SMAJ080CAL0S001	8	8.89	9.83	1	50	29.41	13.6	WR
SMAJ085CL0S001	8.5	9.44	11.50	1	10	25.16	15.9	WS
SMAJ085CAL0S001	8.5	9.44	10.40	1	10	27.78	14.4	WT
SMAJ090CL0S001	9	10.00	12.20	1	5	23.67	16.9	WU
SMAJ090CAL0S001	9	10.00	11.10	1	5	25.97	15.4	WV
SMAJ10CL00S001	10	11.10	13.60	1	5	21.28	18.8	WW
SMAJ10CAL0S001	10	11.10	12.30	1	5	23.53	17.0	WX
SMAJ11CL00S001	11	12.20	14.90	1	1	19.90	20.1	WY
SMAJ11CAL0S001	11	12.20	13.50	1	1	21.98	18.2	WZ

BIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C

Part Code	Working Peak Reverse Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage	Max. Reverse Surge Current	Max. Clamping Voltage	Marking Code
		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	VC @ IPP	
	V	V	V	mA	μA	A	V	
SMDJ12CL00S001	12	13.30	16.30	1	1	18.18	22.0	XD
SMDJ12CAL0S001	12	13.30	14.70	1	1	20.10	19.9	XE
SMDJ13CL00S001	13	14.40	17.60	1	1	16.81	23.8	XF
SMDJ13CAL0S001	13	14.40	15.90	1	1	18.60	21.5	XG
SMDJ14CL00S001	14	15.60	19.10	1	1	15.50	25.8	XH
SMDJ14CAL0S001	14	15.60	17.20	1	1	17.24	23.2	XK
SMDJ15CL00S001	15	16.70	20.40	1	1	14.87	26.9	XL
SMDJ15CAL0S001	15	16.70	18.50	1	1	16.39	24.4	XM
SMDJ16CL00S001	16	17.80	21.80	1	1	13.89	28.8	XN
SMDJ16CAL0S001	16	17.80	19.70	1	1	15.38	26.0	XP
SMDJ17CL00S001	17	18.90	23.10	1	1	13.11	30.5	XQ
SMDJ17CAL0S001	17	18.90	20.90	1	1	14.49	27.6	XR
SMDJ18CL00S001	18	20.00	24.40	1	1	12.42	32.2	XS
SMDJ18CAL0S001	18	20.00	22.10	1	1	13.70	29.2	XT
SMDJ19CL00S001	19	21.13	25.76	1	1	11.76	34.0	XA
SMDJ19CAL0S001	19	21.10	23.30	1	1	13.00	30.8	XB
SMDJ20CL00S001	20	22.20	27.10	1	1	11.17	35.8	XU
SMDJ20CAL0S001	20	22.20	24.50	1	1	12.35	32.4	XV
SMDJ22CL00S001	22	24.40	29.80	1	1	10.15	39.4	XW
SMDJ22CAL0S001	22	24.40	26.90	1	1	11.27	35.5	XX

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		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	VC @ IPP	
	V	V	V	mA	µA	A	V	
SMDJ24CL00S001	24	26.70	32.60	1	1	9.30	43.0	XY
SMDJ24CAL0S001	24	26.70	29.50	1	1	10.28	38.9	XZ
SMDJ26CL00S001	26	28.90	35.30	1	1	8.58	46.6	YD
SMDJ26CAL0S001	26	28.90	31.90	1	1	9.50	42.1	YE
SMDJ28CL00S001	28	31.10	38.00	1	1	8.00	50.0	YF
SMDJ28CAL0S001	28	31.10	34.40	1	1	8.81	45.4	YG
SMDJ30CL00S001	30	33.30	40.70	1	1	7.48	53.5	YH
SMDJ30CAL0S001	30	33.30	36.80	1	1	8.26	48.4	YK
SMDJ33CL00S001	33	36.70	44.90	1	1	6.78	59.0	YL
SMDJ33CAL0S001	33	36.70	40.60	1	1	7.50	53.3	YM
SMDJ36CL00S001	36	40.00	48.90	1	1	6.22	64.3	YN
SMDJ36CAL0S001	36	40.00	44.20	1	1	6.88	58.1	YP
SMDJ40CL00S001	40	44.40	54.30	1	1	5.60	71.4	YQ
SMDJ40CAL0S001	40	44.40	49.10	1	1	6.20	64.5	YR
SMDJ43CL00S001	43	47.80	58.40	1	1	5.22	76.7	YS
SMDJ43CAL0S001	43	47.80	52.80	1	1	5.76	69.4	YT
SMDJ45CL00S001	45	50.00	61.10	1	1	4.98	80.3	YU
SMDJ45CAL0S001	45	50.00	55.30	1	1	5.50	72.7	YV
SMDJ48CL00S001	48	53.30	65.10	1	1	4.68	85.5	YW
SMDJ48CAL0S001	48	53.30	58.90	1	1	5.17	77.4	YX

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		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	VC @ IPP	
	V	V	V	mA	µA	A	V	
SMDJ51CL00S001	51	56.70	69.30	1	1	4.39	91.1	YY
SMDJ51CAL0S001	51	56.70	62.70	1	1	4.85	82.4	YZ
SMDJ54CL00S001	54	60.00	73.30	1	1	4.15	96.3	ZD
SMDJ54CAL0S001	54	60.00	66.30	1	1	4.59	87.1	ZE
SMDJ58CL00S001	58	64.40	78.70	1	1	3.88	103.0	ZF
SMDJ58CAL0S001	58	64.40	71.20	1	1	4.27	93.6	ZG
SMDJ60CL00S001	60	66.70	81.50	1	1	3.74	107.0	ZH
SMDJ60CAL0S001	60	66.70	73.70	1	1	4.13	96.8	ZK
SMDJ64CL00S001	64	71.10	86.90	1	1	3.51	114.0	ZL
SMDJ64CAL0S001	64	71.10	78.60	1	1	3.88	103.0	ZM
SMDJ70CL00S001	70	77.80	95.10	1	1	3.20	125.0	ZN
SMDJ70CAL0S001	70	77.80	86.00	1	1	3.54	113.0	ZP
SMDJ75CL00S001	75	83.30	102.00	1	1	2.99	134.0	ZQ
SMDJ75CAL0S001	75	83.30	92.10	1	1	3.31	121.0	ZR
SMDJ78CL00S001	78	86.70	106.00	1	1	2.88	139.0	ZS
SMDJ78CAL0S001	78	86.70	95.80	1	1	3.17	126.0	ZT
SMDJ80CL00S001	80	88.96	108.80	1	1	2.79	143.2	ZA
SMDJ80CAL0S001	80	88.80	97.60	1	1	3.09	129.6	ZB
SMDJ85CL00S001	85	94.40	115.00	1	1	2.65	151.0	ZU
SMDJ85CAL0S001	85	94.40	104.00	1	1	2.92	137.0	ZV

BIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C

Part Code	Working Peak Reverse Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage	Max. Reverse Surge Current	Max. Clamping Voltage	Marking Code
		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	VC @ IPP	
	V	V	V	mA	µA	A	V	
SMDJ90CL00S001	90	100.00	122.00	1	1	2.50	160.0	ZW
SMDJ90CAL0S001	90	100.00	111.00	1	1	2.74	146.0	ZX
SMDJ100CL0S001	100	111.00	136.00	1	1	2.23	179.0	ZY
SMDJ100CALS001	100	111.00	123.00	1	1	2.47	162.0	ZZ
SMDJ110CL0S001	110	122.00	149.00	1	1	2.04	196.0	VD
SMDJ110CALS001	110	122.00	135.00	1	1	2.26	177.0	VE
SMDJ120CL0S001	120	133.00	163.00	1	1	1.87	214.0	VF
SMDJ120CALS001	120	133.00	147.00	1	1	2.07	193.0	VG
SMDJ130CL0S001	130	144.00	176.00	1	1	1.73	231.0	VH
SMDJ130CALS001	130	144.00	159.00	1	1	1.91	209.0	VK
SMDJ140CL0S001	140	155.68	190.40	1	1	1.60	250.6	VA
SMDJ140CALS001	140	155.00	171.00	1	1	1.76	226.8	VB
SMDJ150CL0S001	150	167.00	204.00	1	1	1.49	268.0	VL
SMDJ150CALS001	150	167.00	185.00	1	1	1.65	243.0	VM
SMDJ160CL0S001	160	178.00	218.00	1	1	1.39	287.0	VN
SMDJ160CALS001	160	178.00	197.00	1	1	1.54	259.0	VP
SMDJ170CL0S001	170	189.00	231.00	1	1	1.32	304.0	VQ
SMDJ170CALS001	170	189.00	209.00	1	1	1.45	275.0	VR
SMDJ180CL0S001	180	200.16	244.80	1	1	1.24	322.2	VS
SMDJ180CALS001	180	200.00	220.00	1	1	1.37	291.6	VT

BIDIRECTIONAL TYPE- ELECTRICAL CHARACTERISTICS - Ta = 25°C

Part Code	Working Peak Reverse Voltage	Breakdown Voltage		Test Current	Max. Reverse Leakage	Max. Reverse Surge Current	Max. Clamping Voltage	Marking Code
		VBR @ IT						
	VRWM	Min.	Max.	IT	IR @ VRWM	IPP	Vc @ IPP	
	V	V	V	mA	μA	A	V	
SMDJ190CL0S001	190	211.28	258.40	1	1	1.18	340.1	VU
SMDJ190CALS001	190	211.00	232.00	1	1	1.30	307.8	VV
SMDJ200CALS001	200	224.00	247.00	1	1	1.23	324.0	VW
SMDJ220CALS001	220	246.00	272.00	1	1	1.12	356.0	VX
SMDJ250CALS001	250	279.00	309.00	1	1	0.99	405.0	VZ
SMDJ300CALS001	300	335.00	371.00	1	1	0.82	486.0	HE
SMDJ350CALS001	350	391.00	432.00	1	1	0.71	567.0	HG
SMDJ400CALS001	400	447.00	494.00	1	1	0.62	648.0	HK
SMDJ440CALS001	440	492.00	543.00	1	1	0.56	713.0	HM

Note:

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

RATINGS AND CHARACTERISTICS CURVES- For Reference Only, $T_a=25^{\circ}\text{C}$ Unless Otherwise Specified.

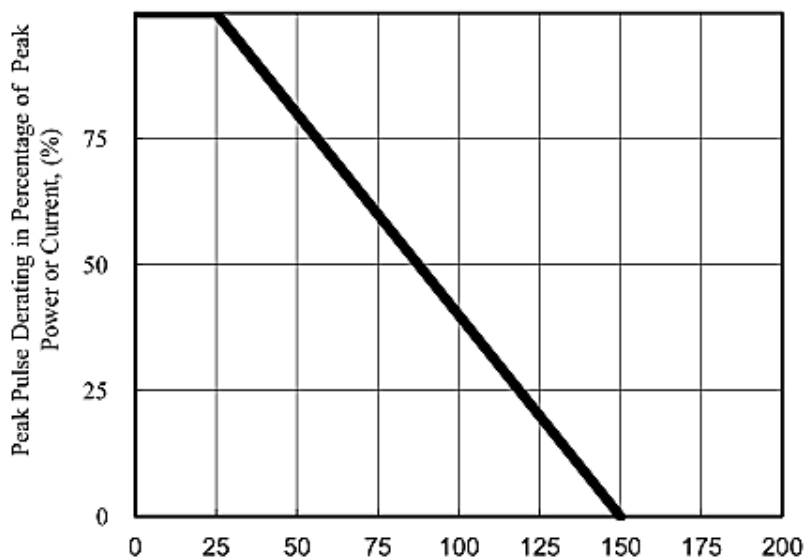


Fig. 1 - Pulse Derating Curve

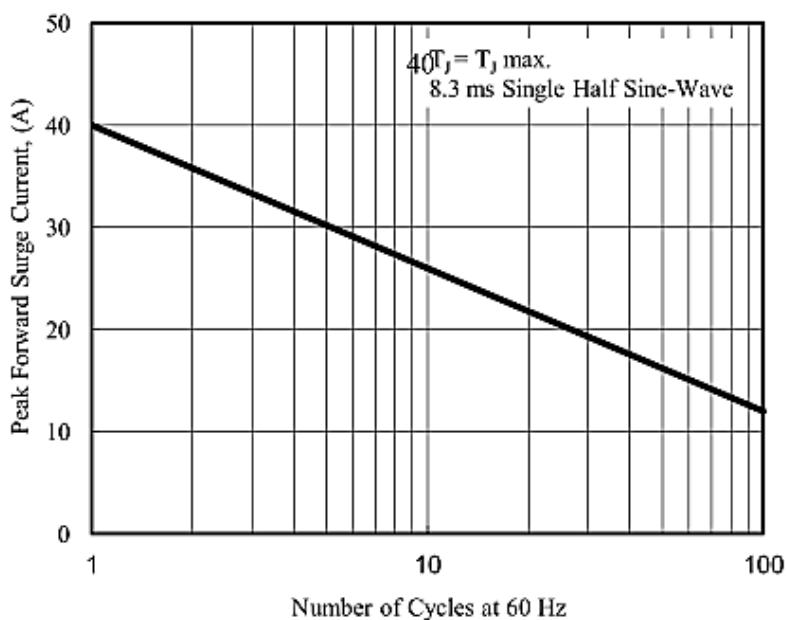


Fig. 2 - Maximum Non-Repetitive
Surge Current

RATINGS AND CHARACTERISTICS CURVES- For Reference Only, Ta=25°C Unless Otherwise Specified.

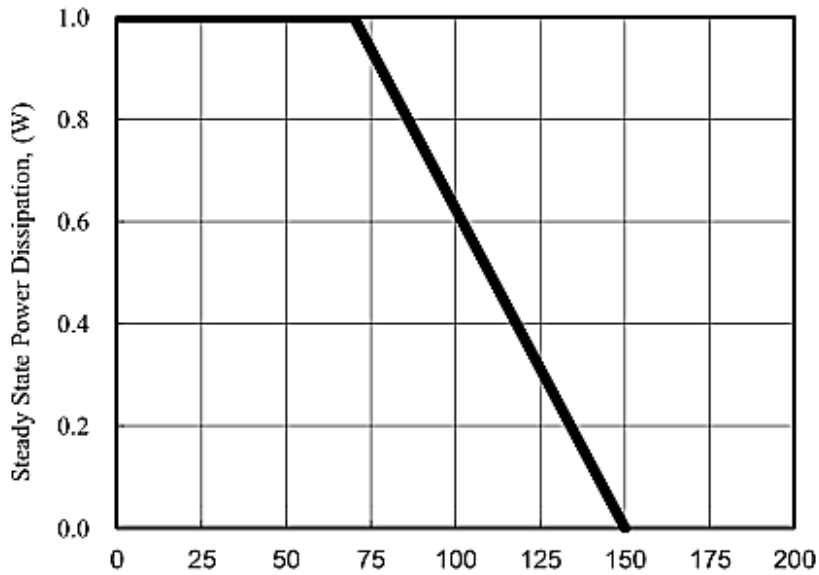


Fig. 3 - Steady State Power Derating Curve

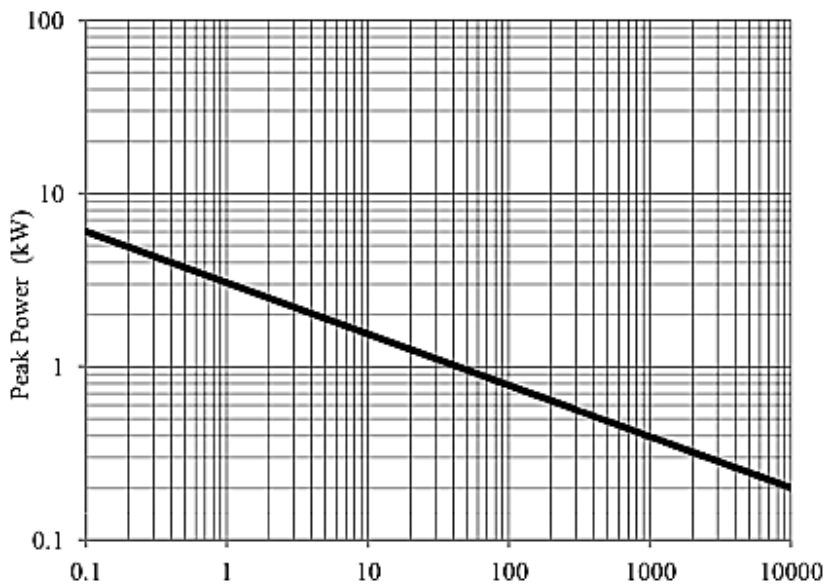


Fig. 4 - Peak Pulse Power Rating Curve

RATINGS AND CHARACTERISTICS CURVES- For Reference Only, $T_a=25^\circ\text{C}$ Unless Otherwise Specified.

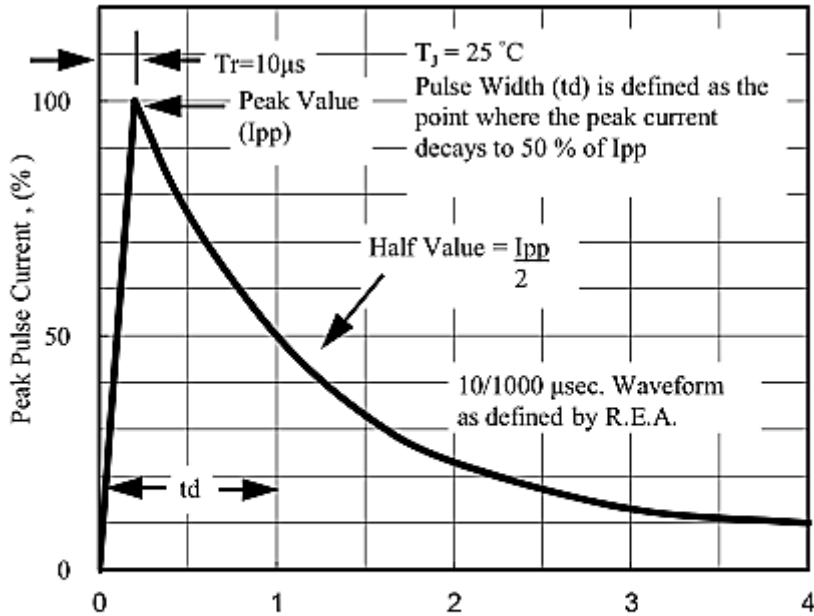


Fig. 5 - Pulse Waveform

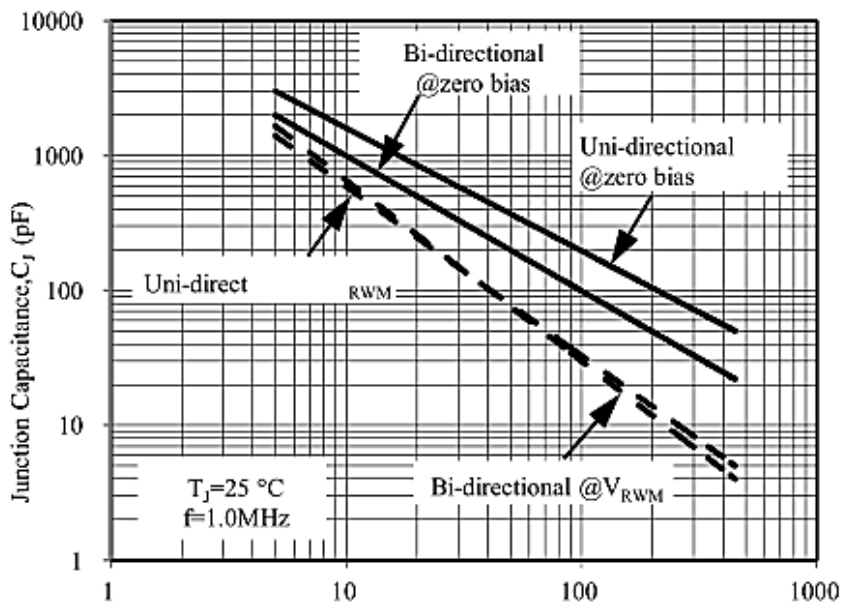


Fig. 6 - Typical Junction Capacitance

RECOMMENDED SOLDERING PARAMETERS – FOR REFERENCE ONLY


PROFILE FEATURE		PB-FREE ASSEMBLY
Average Ramp-up Rate (T_L Max to T_p)		3°C/second Max
Preheat	Temperature Min (T_s Min.)	150°C
	Temperature Max (T_s Max.)	200°C
	Time (t_s Min. to t_s Max.)	60 ~ 180 seconds
Time maintained above	Temperature (T_L)	217°C
	Time (t_L)	60 ~ 150 seconds
Peak/Classification Temperature (T_p)		260 °C
Time within 5°C of actual Peak Temperature (t_p)		20 ~ 40 seconds
Ramp-down Rate		6 °C /Second Max.
Time 25 °C to Peak Temperature		8 Minutes Max.
Suggest reflow times		3 Times Max.

TAPE/REEL - Unit: mm, All Devices are packed in accordance with EIA standard RS-481-A and specifications



ITEM	SYMBOL	TOLERANCE	SMA/DO-214AC
Carrier width	A	0.1	2.80
Carrier Length	B	0.1	5.33
Carrier Depth	C	0.1	2.36
Sprocket hole	d	0.05	1.50
13"Reel outside diameter	D	2.0	330.0
13"Reel inner diameter	D1	-	50.00Min.
Feed hole diameter	D2	0.5	13.00
Sprocket hole position	E	0.1	1.75
Punch hole position	F	0.1	5.50
Punch hole pitch	P	0.1	4.00
Sprocket hole pitch	P0	0.1	4.00
Embossment center	P1	0.1	2.00
Overall tape thickness	T	0.1	0.28
Tape width	W	0.3	12.00
Reel width	W1	1.0	18.00
Qty./Reel (pcs)	5000		

IMPORTANT NOTES AND DISCLAIMER

1. **ROHS COMPLIANCE:** The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU RoHS Directive (EU) 2015/863 EC (RoHS3). RoHS Test Report for this product can be obtained at Download Center.
2. **REACH COMPLIANCE:** REACH substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, REACH Test Report for this product can be obtained at Download Center.
3. All Product parametric performance is indicated in the Electrical Characteristics for the listed herein test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.
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8. *NextGen* requires that customers first obtain an RMA (Returned Merchandise Authorization) number prior to returning any products. Returns must be made within 30 days of the date of invoice, be in the original packaging, unused and like-new condition. At the time of quoting or purchasing, a product may say that it is Non-Cancelable/ Non-Returnable (NCNR). These products are not returnable and not refundable.