/ Absolute Maximum Ratings(Ta=25)

Parameter		Symbol	Rating	Unit
Peak Pulse Power Dissipation on 10/1000 us waveform (Note1,Note2, Fig.1).		P_{PPM}	600	W
Peak Forward Surge Current,8.3ms Single Half Sine-Wave Superimposed on Rated Load, (JEDEC Method) (Note 3,Fig4).		I_{FSM} (UNI)	100	A
Peak Pulse Current on 10/1000 us waveform (Note 1, Fig 3)		I_{PPM}	see Table 1	A
ESD Voltage per IEC6100-4-2	Contact	V_{ESD1}	± 30	KV
	Air	V_{ESD2}	± 30	KV
Typical Thermal Resistance (Note 5)		$R_{\theta JA}$	90	/W
		$R_{\theta JC}$	18	/W
		$R_{\theta JL}$	22	/W
Operating Junction Temperature and Storage Temperature Range		T_j, T_{stg}	-55 ~ +150	

Note:

1. Non-repetitive current pulse, per Fig.3 and derated above TA = 25°C per Fig. 2.
2. Mounted on 5 mm 2(0.13mm thick) land areas.
3. Measured on 8.3ms,single half sine-wave or equivalent square wave,duty cycle=4 pulses per minute maximum.
4. Peak pulse power waveform is 10/1000μS.
5. P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

/ Electrical Characteristics(Ta=25)

Type		Device Marking Ccode		Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Clamp Voltage	Peak Pulse Current	Maximum Reverse Leakage
					V_{BR} @ I_T					
				V_{RMW}	Min	Max	I_T	V_C @ I_{PP}	I_{PP}	
UNI	BI	UNI	BI	V	V	V	mA	V	A	uA
BRSMBJ5.0AQ		KEQ		5	6.4	7	10	9.2	65.3	800
BRSMBJ6.0AQ		KGQ		6	6.67	7.37	10	10.3	58.3	800
BRSMBJ6.5AQ	BRSMBJ6.5CAQ	KKQ	AKQ	6.5	7.22	7.98	10	11.2	53.6	500
BRSMBJ7.0AQ	BRSMBJ7.0CAQ	KMQ	AMQ	7	7.78	8.6	10	12.0	50.0	200
BRSMBJ7.5AQ	BRSMBJ7.5CAQ	KPQ	APQ	7.5	8.33	9.21	1	12.9	46.6	100
BRSMBJ8.0AQ	BRSMBJ8.0CAQ	KRQ	ARQ	8	8.89	9.83	1	13.6	44.2	50
BRSMBJ8.5AQ	BRSMBJ8.5CAQ	KTQ	ATQ	8.5	9.44	10.4	1	14.4	41.7	20
BRSMBJ9.0AQ	BRSMBJ9.0CAQ	KVQ	AVQ	9	10	11.1	1	15.4	39.0	10
BRSMBJ10AQ	BRSMBJ10CAQ	KXQ	AXQ	10	11.1	12.3	1	17.0	35.3	5
BRSMBJ11AQ	BRSMBJ11CAQ	KZQ	AZQ	11	12.2	13.5	1	18.2	33.0	1
BRSMBJ12AQ	BRSMBJ12CAQ	LEQ	BEQ	12	13.3	14.7	1	19.9	30.2	1
BRSMBJ13AQ	BRSMBJ13CAQ	LGQ	BGQ	13	14.4	15.9	1	21.5	28.0	1
BRSMBJ14AQ	BRSMBJ14CAQ	LKQ	BKQ	14	15.6	17.2	1	23.2	25.9	1
BRSMBJ15AQ	BRSMBJ15CAQ	LMQ	BMQ	15	16.7	18.5	1	24.4	24.6	1
BRSMBJ16AQ	BRSMBJ16CAQ	LPQ	BPQ	16	17.8	19.7	1	26.0	23.1	1
BRSMBJ17AQ	BRSMBJ17CAQ	LRQ	BRQ	17	18.9	20.9	1	27.6	21.8	1
BRSMBJ18AQ	BRSMBJ18CAQ	LTQ	BTQ	18	20	22.1	1	29.2	20.6	1
BRSMBJ20AQ	BRSMBJ20CAQ	LVQ	BVQ	20	22.2	24.5	1	32.4	18.6	1
BRSMBJ22AQ	BRSMBJ22CAQ	LXQ	BXQ	22	24.4	26.9	1	35.5	16.9	1
BRSMBJ24AQ	BRSMBJ24CAQ	LZQ	BZQ	24	26.7	29.5	1	38.9	15.5	1
BRSMBJ26AQ	BRSMBJ26CAQ	MEQ	CEQ	26	28.9	31.9	1	42.1	14.3	1
BRSMBJ28AQ	BRSMBJ28CAQ	MGQ	CGQ	28	31.1	34.4	1	45.4	13.3	1
BRSMBJ30AQ	BRSMBJ30CAQ	MKQ	CKQ	30	33.3	36.8	1	48.4	12.4	1
BRSMBJ33AQ	BRSMBJ33CAQ	MMQ	CMQ	33	36.7	40.6	1	53.3	11.3	1
BRSMBJ36AQ	BRSMBJ36CAQ	MPQ	CPQ	36	40	44.2	1	58.1	10.4	1
BRSMBJ40AQ	BRSMBJ40CAQ	MRQ	CRQ	40	44.4	49.1	1	64.5	9.3	1
BRSMBJ43AQ	BRSMBJ43CAQ	MTQ	CTQ	43	47.8	52.8	1	69.4	8.7	1

Type	Device Marking Ccode	Reverse Stand-off Voltage	Breakdown Voltage		Test Current	Max. Clamp Voltage	Peak Pulse Current	Maximum Reverse Leakage
			V_{BR} @ I_T					
		V_{RMW}	Min	Max	I_T	V_C @ I_{PP}	I_{PP} V_{RMW}	

/ Electrical Characteristic Curve

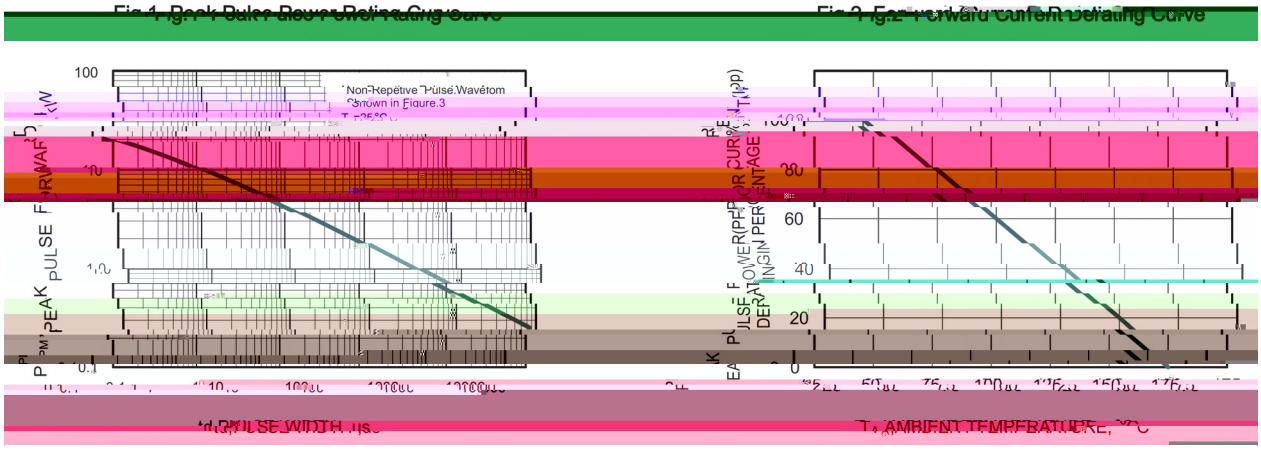


Fig.3 Pulse Waveform

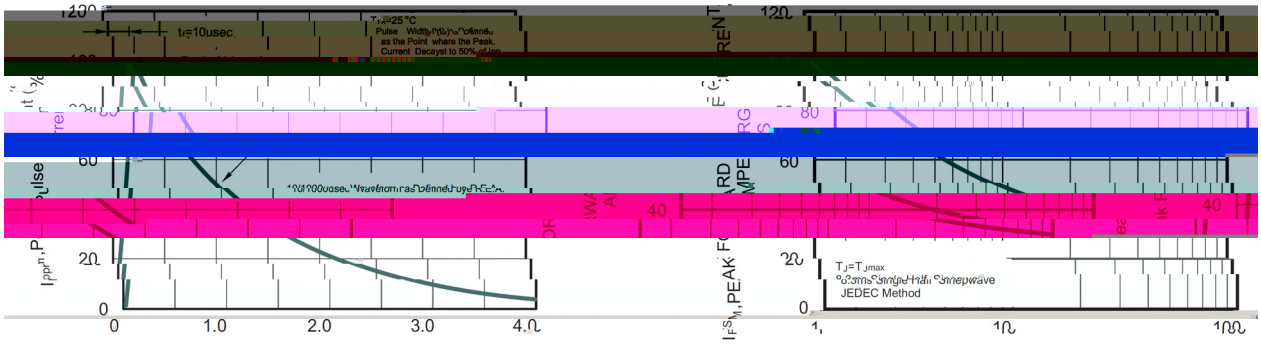
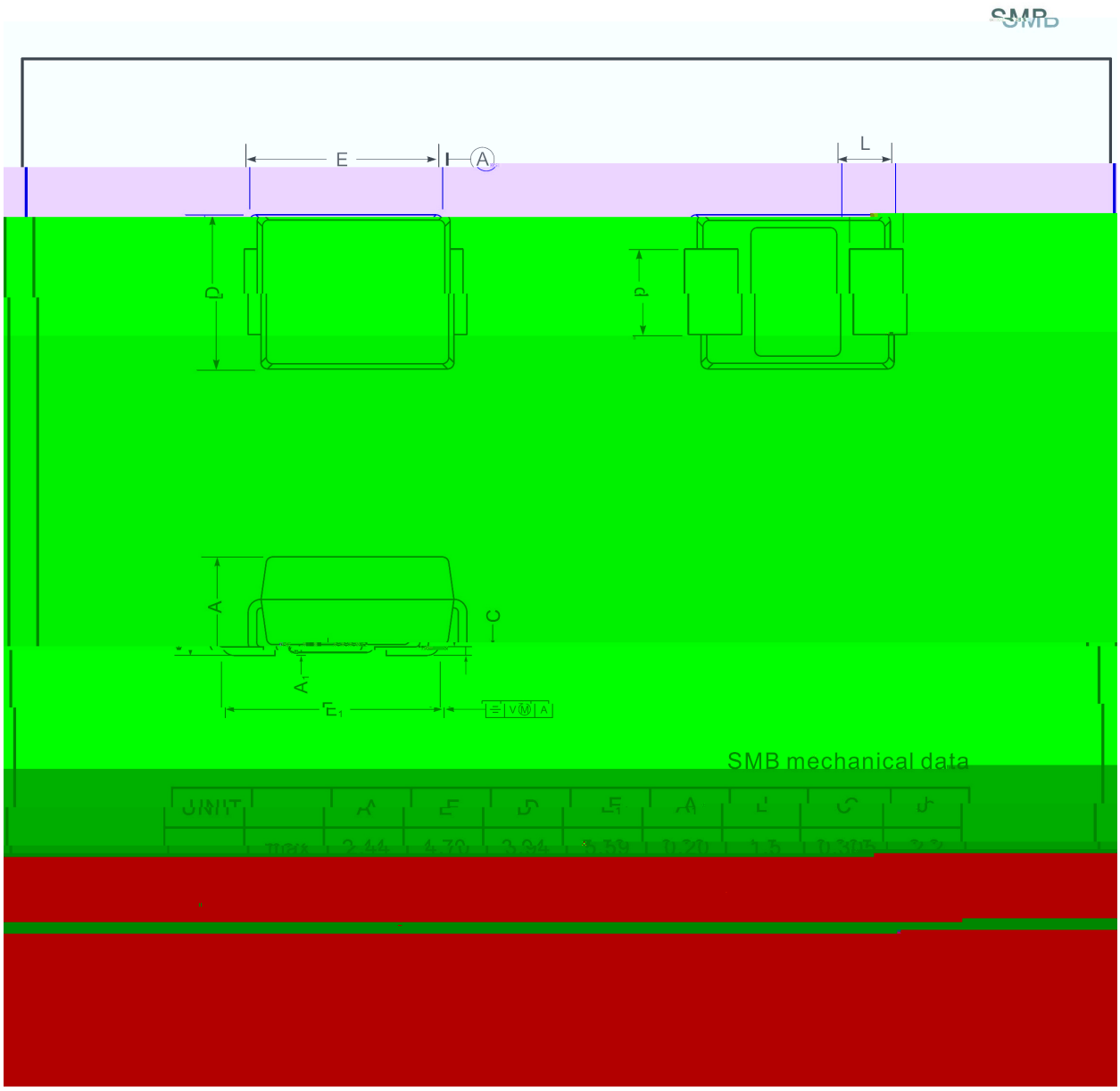
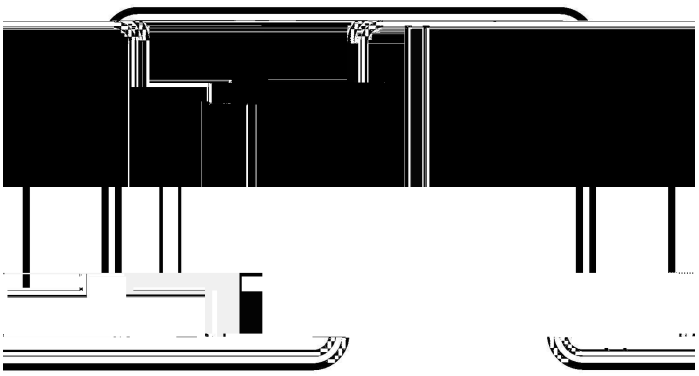


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current

/ Package Dimensions





/ Marking Instructions



AK

Q

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Note:

AK	Product Type Code
Q:	Automobile halogen-free product Code
****	Lot No. Code, code change with Lot No.

BRSMBJ SeriesQ

Rev.B Jun.-2025

DATA SHEET