





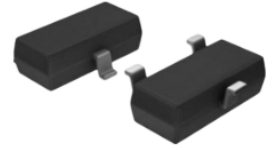
SPECIFICATION SHEET NO.	S1016 – BAV70L0000S0A4	
ORIGINAL MFG/PART NO.	 LGE Diodes/BAV70-L	
NEXTGEN PART CODE	BAV70L0000S0A4	Indicate This Code For <a href="#">RFQ</a> /Order
DATE	Oct. 16, 2025	
REVISION	A4	Updated With Most Recent Data
DESCRIPTION AND MAIN PARAMETRICS	<p>Dual SMD Fast Switching Diodes, Case SOT-23, BA L Series, 3 Pads</p> <p>Peak repetitive reverse voltage (VRM): 75V Max.</p> <p>Forward continuous Current (IFM) 300mA Max.</p> <p>Junction Temperature (TJ) +150°C</p> <p>Package in Tape/Reel, 3000pcs/Reel</p> <p>RoHS/RoHS III compliant, RoHS Annex III lead Exemption (Exempt per RoHS EU 2015/863) and Halogen Free (HF)</p>	
CUSTOMER		
CUSTOMER PART NUMBER		
CROSS REF. PART NUMBER		
MEMO		

VENDOR APPROVE		
Issued/Checked/Approved		
		
Effective Date: Oct. 16, 2025		

CUSTOMER APPROVE	
Date:	

## MAIN FEATURE

- Fast Switching Speed
- High Conductance
- Common Cathode.
- Case Type SOT-23
- Surface Mount Package Ideally Suited For Automatic Insertion
- Meet MSL 1 Requirement
- 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

- For General Purpose Switching Applications
- Small Signal Switching



## ELECTRICAL CHARACTERISTICS

- See Page 5 ~ Page 6.
- All Products Parameters are Subject To NextGen Components' Final Confirmation.

HOW TO ORDER

- Please Follow Up Part Code Guide And Indicate NextGen Part Code BAV70L0000S0A4 For RFQ and Order.

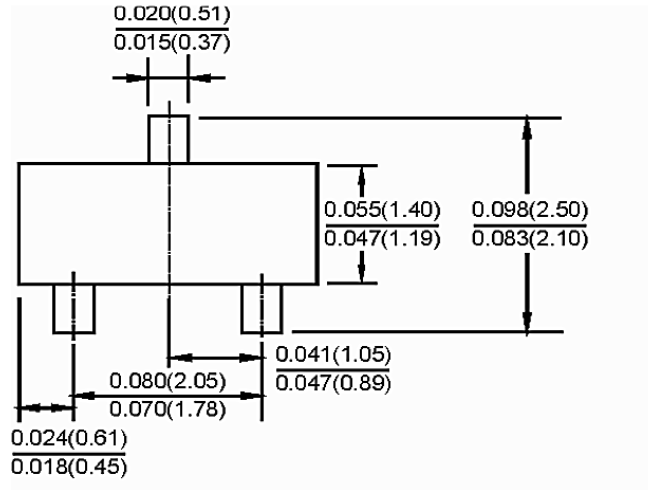
PART CODE GUIDE

**RFQ**  
[Request For Quotation](#)

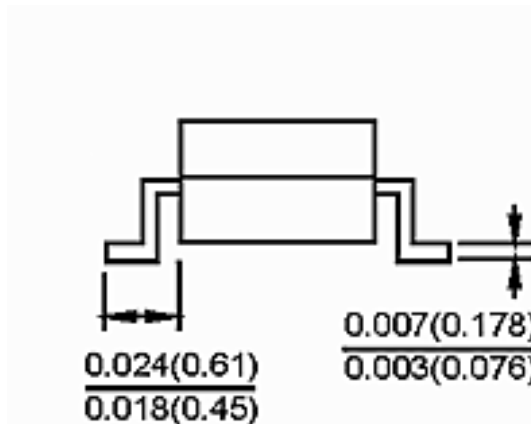
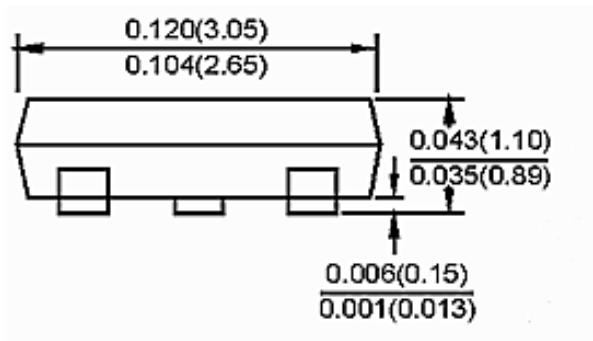
CODE	NAME	KEY SPECIFICATION OPTION
BA	Product Series Code	Dual SMD Fast Switching Diodes, Case SOT-23, BA L Series, 3 Pads
V70	Parameters Code	Letter or Digits (A~Z, a~z or 0~9)
L0000S	Internal Control Code	Letter or Digits (A~Z, a~z or 0~9)
0A4	Marking Code	0A4: For Marking "A4"
XX	Special/Custom Parameters Code	Letter or Digits (A~Z, a~z or 0~9) for Special Parametric; Blank: N/A

DIMENSION - Unit: mm, Case SOT-23, Inch/mm

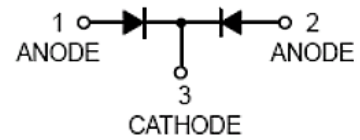
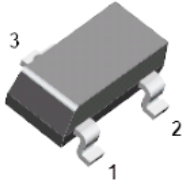
Top View



Side View



### Equivalent Circuit



1. Gate (G) 2. Source (S) 3. Drain (D)

### MECHANICAL CHARACTERISTICS

CASE	FLAMMABILITY RATING	TERMINALS	MARKING
JEDEC SOT-23 molded plastic body	UL 94V-0	Solder plated, solderable per MIL-STD-750, Method 2026	A4

### ABSOLUTE MAX. RATING - $T_A=25^{\circ}\text{C}$ unless otherwise specified, For Reference Only

PARAMETER	SYMBOLS	VALUE	UNITS
Non-Repetitive Peak Reverse Voltage	$V_{RM}$	100	V
Peak Repetitive Reverse Voltage	$V_{RRM}$	75	V
Working Peak Reverse Voltage	$V_{RWM}$	75	V
DC Reverse Voltage	$V_R$	75	V
RMS Reverse Voltage	$V_{R(RMS)}$	53	V
Forward Continuous Current (Max.)	$I_{FM}$	300	mA
Average Rectified Output Current	$I_o$	150	mA
Repetitive Peak Forward Current	$I_{FRM}$	450	mA
Non-repetitive Forward Surge Current	@ $t=1.0\mu\text{s}$	2.0	A
	@ $t=1.0\text{s}$	1.0	A
Power Dissipation	$P_d$	350	mW
Thermal Resistance From Junction to Ambient Air	$R_{\theta JA}$	357	$^{\circ}\text{C/W}$
Junction Temperature	$T_j$	+150	$^{\circ}\text{C}$
Storage Temperature Range	$T_{STG}$	-65 ~+ 150	$^{\circ}\text{C}$

CHARACTERISTICS-  $T_A=25^{\circ}\text{C}$  unless otherwise specified, For Reference Only

PARAMETER	SYMBOLS	VALUE			UNIT	TEST CONDITIONS
		Min.	Typ.	Max.		
Reverse Breakdown Voltage	$V_{(BR)R}$	75	-	-	V	@ $I_R=2.5\mu\text{A}$
Reverse Voltage Leakage Current	IR	-	-	2.5	$\mu\text{A}$	@ $V_R=70\text{V}$
		-	-	25	nA	@ $V_R=20\text{V}$
Forward Voltage	$V_{F1}$	-	-	715	mV	@ $I_F=1\text{mA}$
	$V_{F2}$	-	-	855	mV	@ $I_F=10\text{mA}$
	$V_{F3}$	-	-	1000	mV	@ $I_F=50\text{mA}$
	$V_{F4}$	-	-	1250	mV	@ $I_F=150\text{mA}$
Diode Capacitance	$C_D$	-	-	2.0	pF	$V_R=0\text{V}, f=1\text{MHz}$
Reverse Recovery Time	$t_{rr}$			4	ns	$I_F=I_R=10\text{mA},$ $I_R=1\text{mA}, V_R=5\text{V}$ $R_L=100\Omega$

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

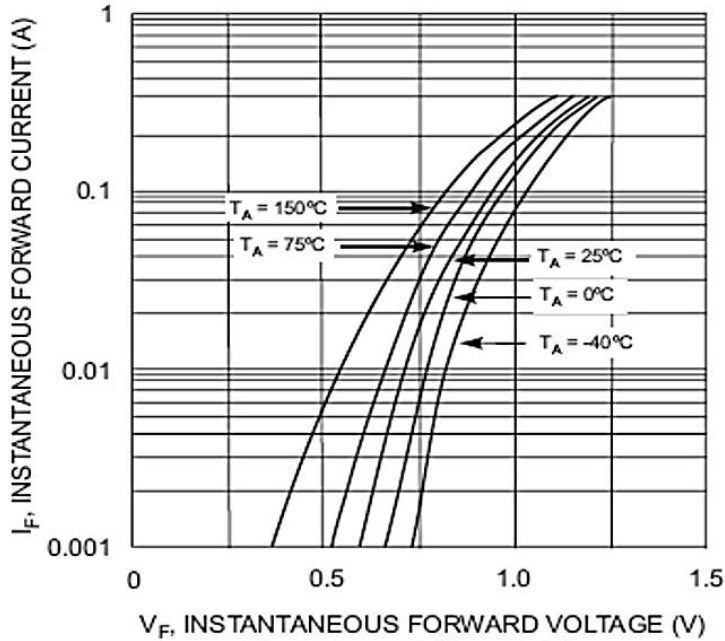


Fig. 1 Forward Characteristics

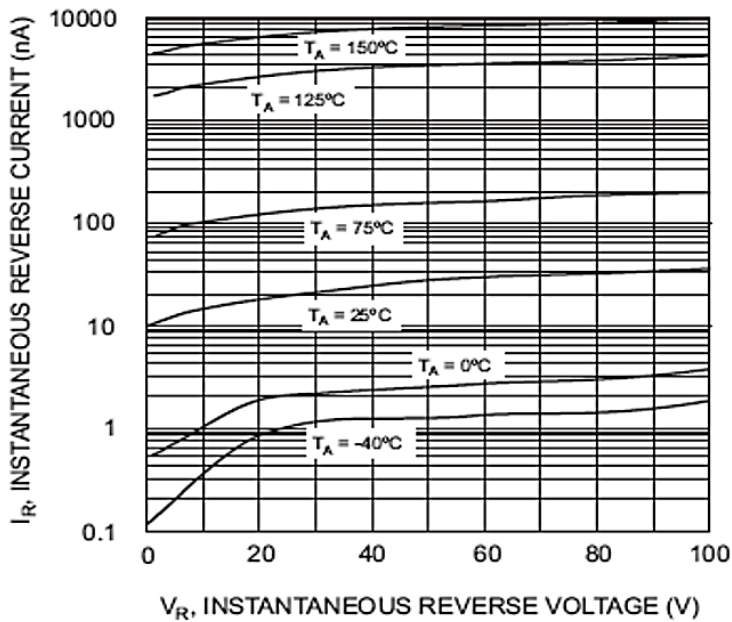


Fig. 2 Typical Reverse Characteristics

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

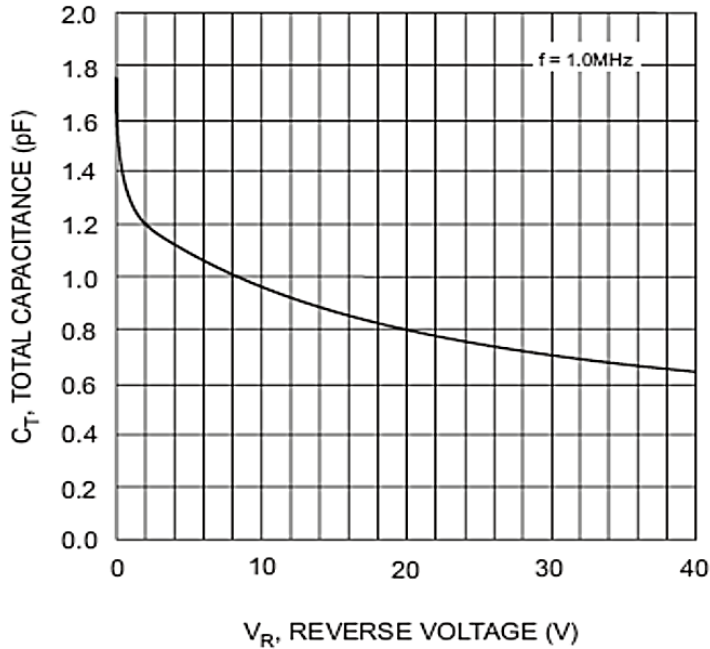


Fig. 3 Typical Capacitance vs. Reverse Voltage

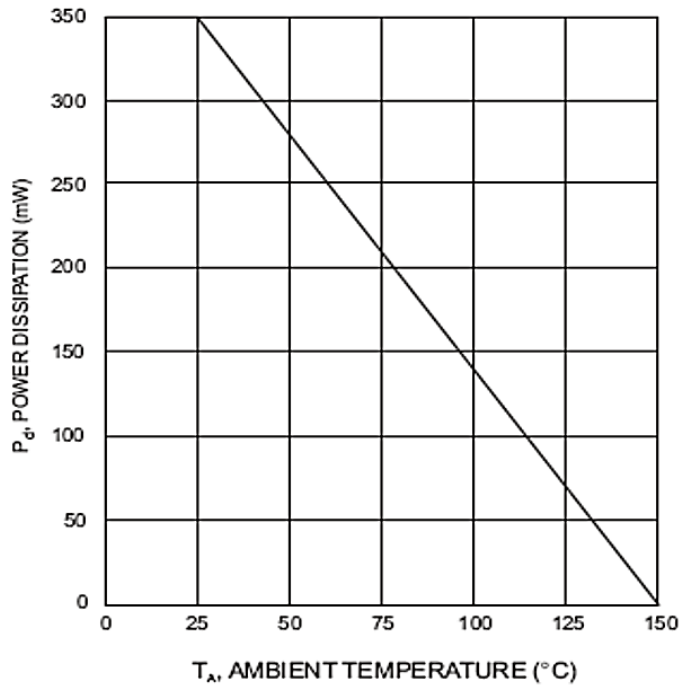
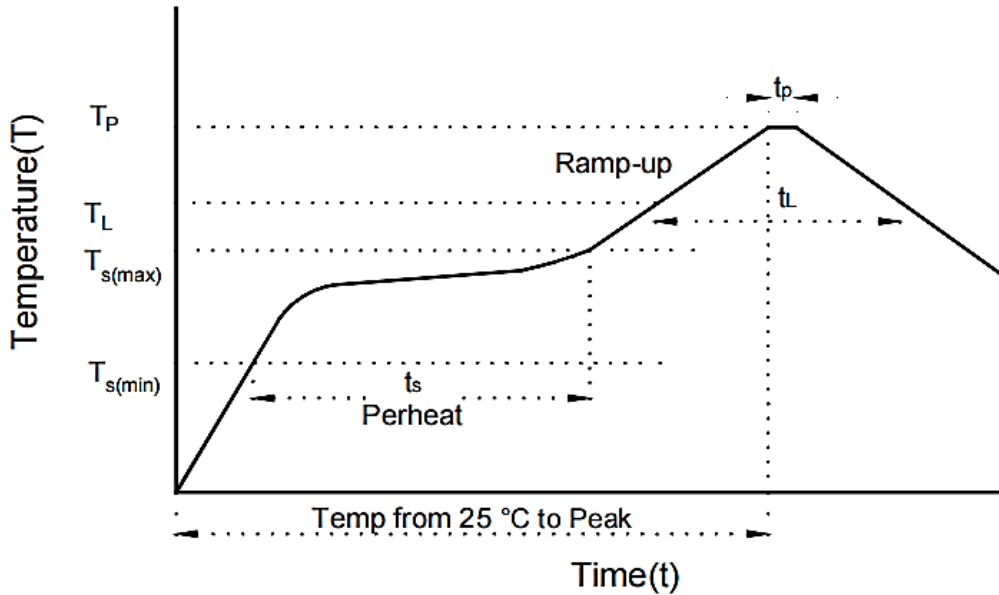


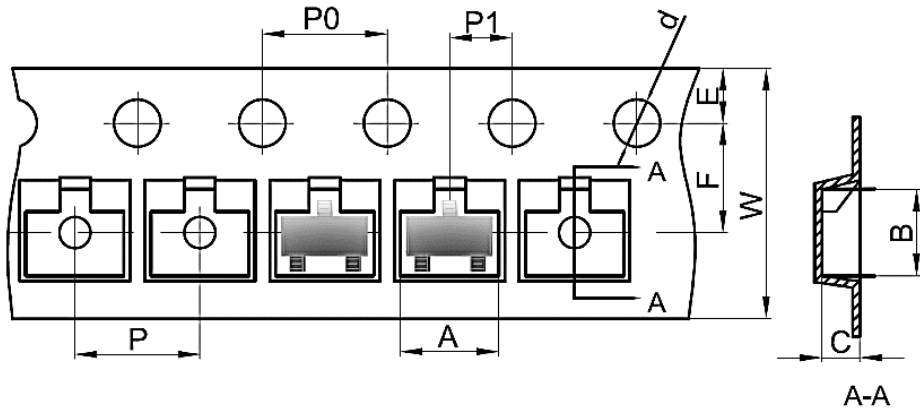
Fig. 4 Power Derating Curve

## SUGGESTED REFLOW PROFILE - For Reference Only

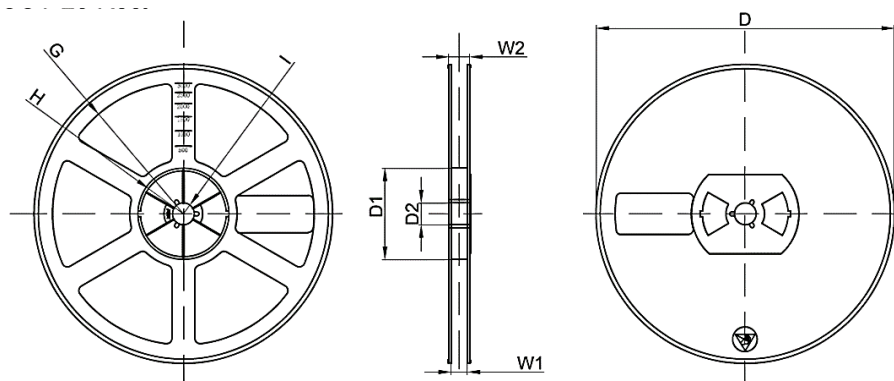
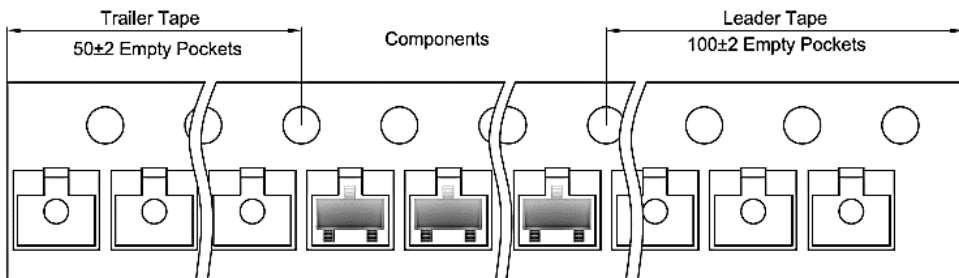


PROFILE FEATURE		PB-FREE ASSEMBLY
Average Ramp-up Rate ( $T_L$ Max to $T_p$ )		3°C/second Max
Preheat	Temperature Min ( $T_s$ Min.)	150°C
	Temperature Max ( $T_s$ Max.)	200°C
	Time ( $t_s$ Min. to $t_s$ Max.)	60 ~ 180 seconds
Time maintained above	Temperature ( $T_L$ )	217°C
	Time ( $t_L$ )	60 ~ 150 seconds
Peak/Classification Temperature ( $T_p$ )		260 °C
Time within 5°C of actual Peak Temperature ( $t_p$ )		10 seconds Max.
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



Case	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	∅1.5	1.75	3.5	4.0	4.0	2.0	8.0



Reel Size	D	D1	D2	G	H	I	W1	W2	Qty. (pcs)
7"	∅178	54.4	13.0	R78.0	R25.6	R6.5	9.5	12.3	3000

## 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.
4. NextGen Component, Inc (*NextGen*) reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
5. *NextGen* makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, not does *NextGen* assume any liability for application assistance or customer product design.
6. *NextGen* does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application. No license is granted by implication or otherwise under any intellectual property rights of NextGen.
7. *NextGen* products are not authorized for use as critical components in life support devices or systems without express written approval by *NextGen*.
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.