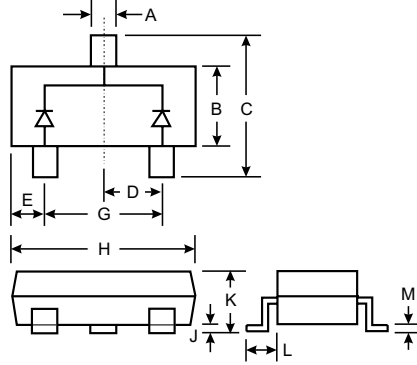


Features

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance

Mechanical Data

- Case: SOT-323, Molded Plastic
- Case Material - UL Flammability Rating Classification 94V-0
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Marking: KJA
- Weight: 0.006 grams (approx.)



SOT-323		
Dim	Min	Max
A	0.30	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.0	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
All Dimensions in mm		

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAV70W	Unit
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	75	V
RMS Reverse Voltage	V _{R(RMS)}	53	V
Forward Continuous Current	I _{FM}	300	mA
Average Rectified Output Current	I _O	150	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I _{FSM}	2.0 1.0	A
Power Dissipation	P _d	200	mW
Thermal Resistance Junction to Ambient Air	R _{θJA}	625	°C/W
Operating and Storage Temperature Range	T _j , T _{STG}	-65 to +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 1)	V _{BR(R)}	75	—	V	I _R = 100μA
Forward Voltage (Note 1)	V _{FM}	—	0.715 0.855 1.0 1.25	V	I _F = 1.0mA I _F = 10mA I _F = 50mA I _F = 150mA
Peak Reverse Current (Note 1)	I _{RM}	—	2.5 50 30 25	μA μA μA nA	V _R = 75V V _R = 75V, T _j = 150°C V _R = 25V, T _j = 150°C V _R = 20V
Junction Capacitance	C _j	—	2.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	t _{rr}	—	4.0	ns	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω

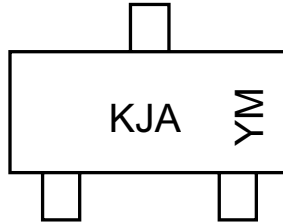
Note: 1. Short duration test pulse used to minimize self-heating effect.

Ordering Information (Note 2)

Device	Packaging	Shipping
BAV70W-7	SOT-323	3000/Tape & Reel

Notes: 2. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



KJA = Product Type Marking Code
 YM = Date Code Marking
 Y = Year ex: N = 2002
 M = Month ex: 9 = September

Date Code Key

Year	1998	1999	2000	2001	2002	2003	2004
Code	J	K	L	M	N	O	P

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

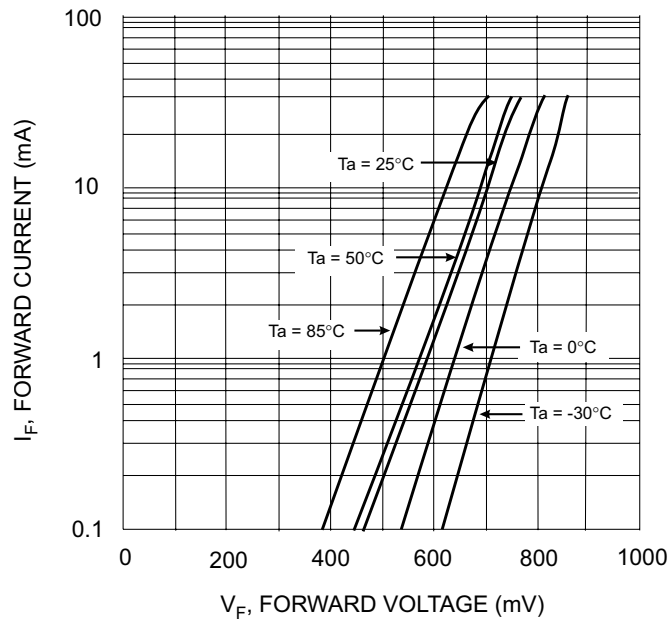


Fig. 1 Forward Current vs. Forward Voltage

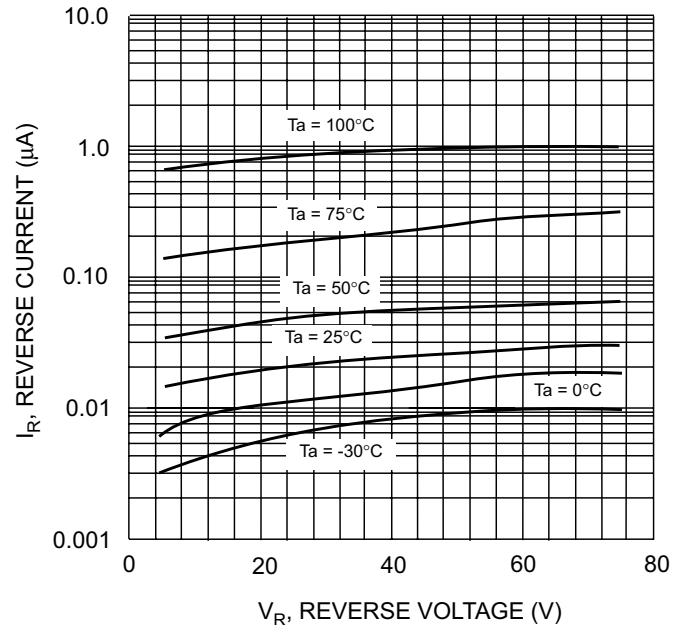


Fig. 2 Reverse Current vs Reverse Voltage

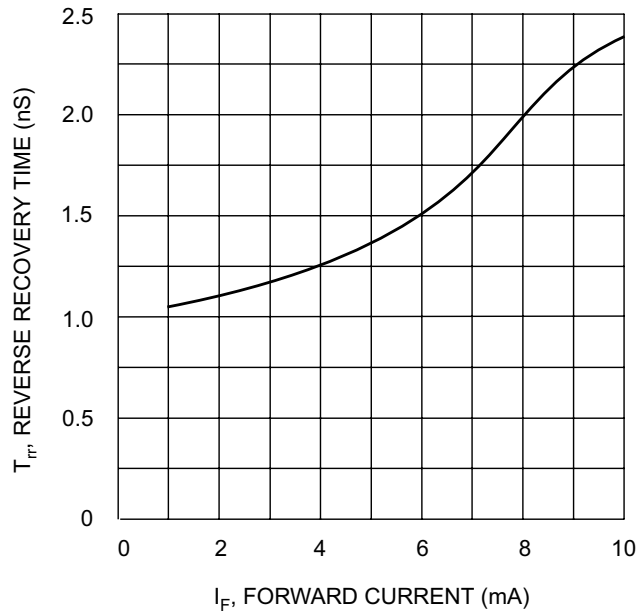


Fig. 3. Reverse Recovery Time vs. Forward Current

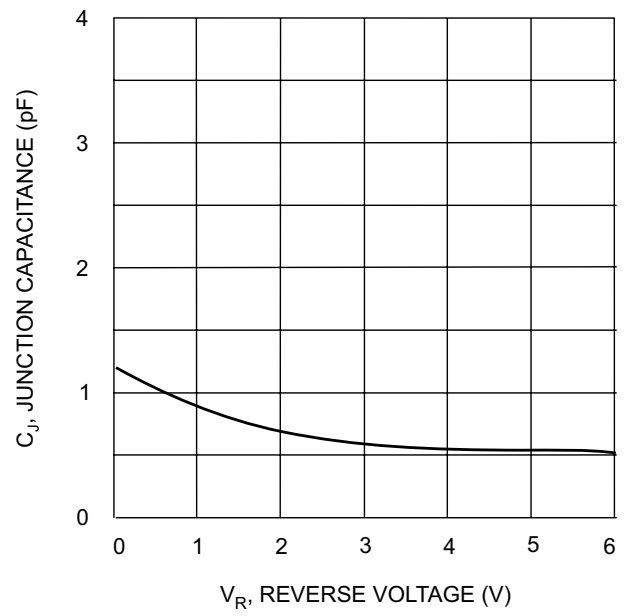


Fig. 4. Typical Junction Capacitance vs. Reverse Voltage