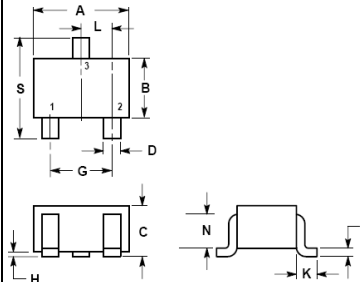


**SURFACE MOUNT
FAST SWITCHING DIODE**
**REVERSE VOLTAGE – 75 Volts
FORWARD CURRENT – 0.15 Ampere**
FEATURES

- Fast switching speed
- Ideally suited for automatic insertion
- For general purpose switching applications

MECHANICAL DATA

- Case: SOT-323 Plastic
- Case material: “Green” molding compound, UL flammability classification 94V-0, (No Br. Sb. Cl)
- Moisture sensitivity: Level 1 per J-STD-020D
- Lead free in RoHS 2002/95/EC compliant

SOT-323


SOT-323		
Dim.	Min.	Max.
A	1.80	2.20
B	1.15	1.35
C	0.80	1.00
D	0.30	0.40
G	1.20	1.40
H	0.00	0.10
J	0.10	0.25
K	0.425 Ref.	
L	0.650 Bsc	
N	0.700 Ref.	
S	2.00	2.40
Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	BAV70W	Units
Non-Repetitive Peak Reverse Voltage	V _{RM}	100	V
Repetitive Peak Reverse Voltage	V _{RRM}	75	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
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	I _{FSM}	2	A
@t=1us		1	
@t=1s			
Power Dissipation	P _D	200	mW
Thermal Resistance Junction to Ambient	R _{θJA}	625	°C/W
Operating Temperature Range	T _J	150	°C
Storage Temperature Range	T _{STG}	-65~+150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Test Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage	I _R = 100uA	V _{BR}	75	--	--	V
Maximum Forward Voltage	I _F = 1mA	V _F	--	--	715	mV
	I _F = 10mA		--	--	855	
	I _F = 50mA		--	--	1000	
	I _F = 150mA		--	--	1250	
Maximum DC Reverse Current at Rated DC Blocking Voltage	V _R = 75V	I _R	--	--	2.5	uA
	V _R = 20V				0.025	
Typical Diode Capacitance	V _R = 0V, f=1MHz	C _D	--	--	2	pF
Reverse Recovery time	I _{RR} =1mA, I _R =I _F =10mA R _L =100Ω	trr	--	--	4	ns

REV. 2, Jan-2013, KSYR37

RATING AND CHARACTERISTIC CURVES

BAV70W

Fig.1 Typical Forward Characteristics

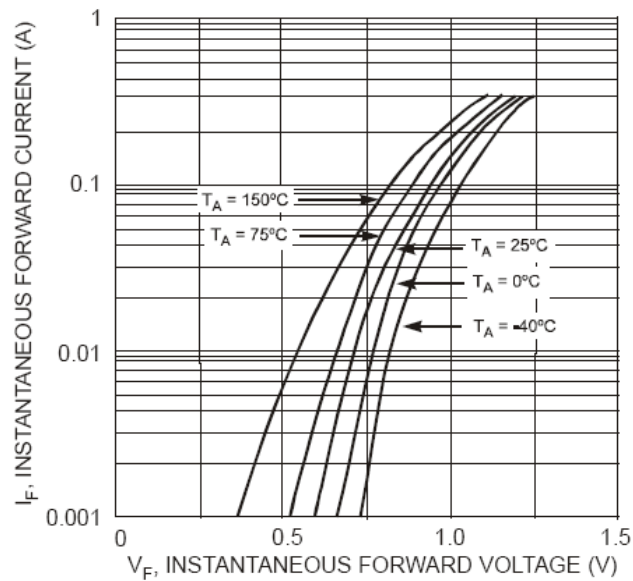


Fig.2 Typical Reverse Characteristics

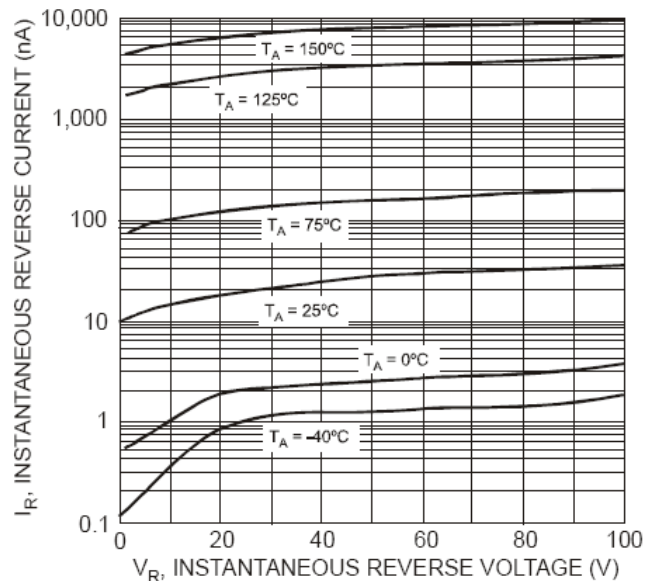


Fig.3 Total Capacitance vs. Reverse Voltage

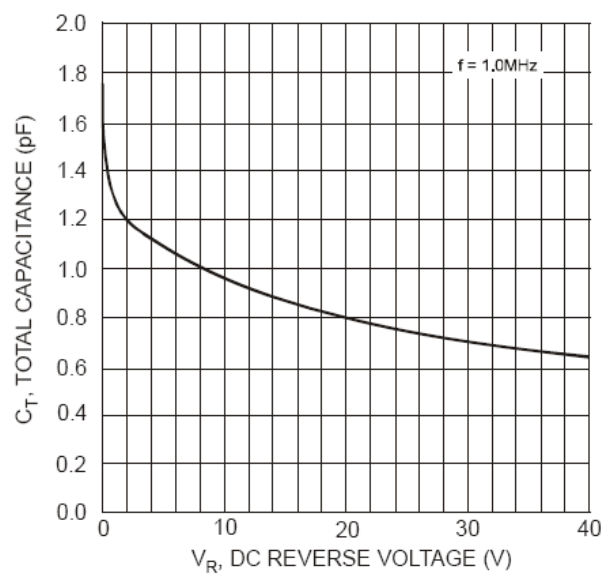


Fig.4 Reverse Recovery Time vs. Forward Current,

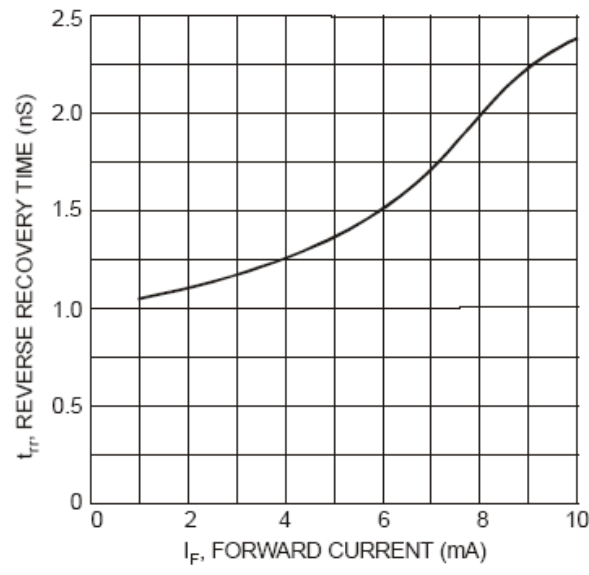
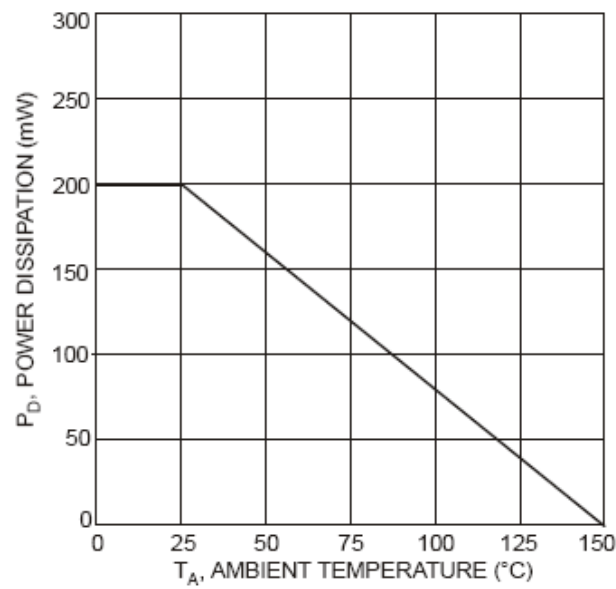


Fig.5 Power Derating Curve



Device Marking :

Device P/N	Marking code	Equivalent Circuit Diagram
BAV70W	A4	

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New Marking Rule Notification

Range: In order to have well management in process control, the new marking rule is applied to small signal device including Switching Diode, Transistor and Schottky Diode.

Package: SOT-23 / SOT-323 / SOT-523

