Innovative Service Around the Globe YAGEO

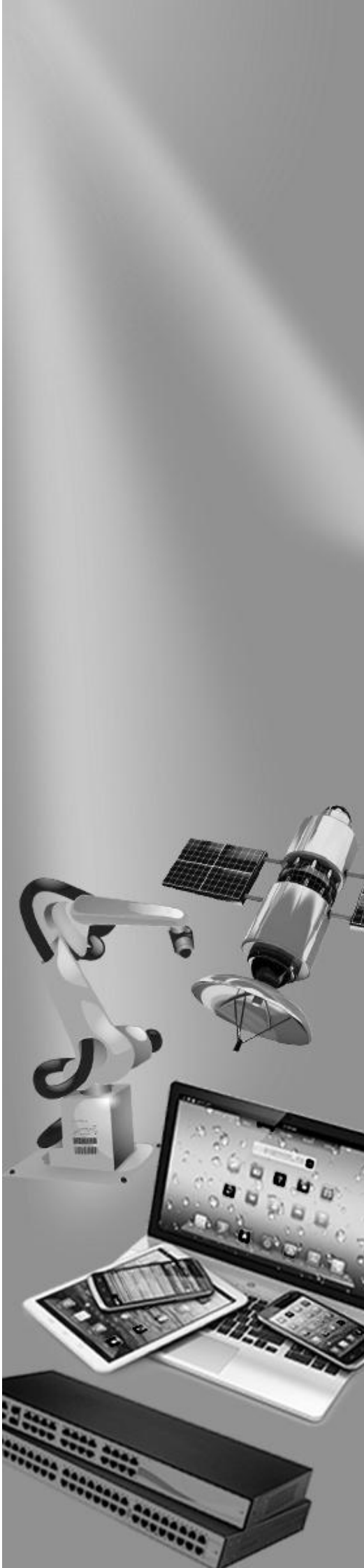
DATA SHEET

SWITCHING DIODE
GENERAL PURPOSE

BAV99W

RoHS compliant & Halogen free

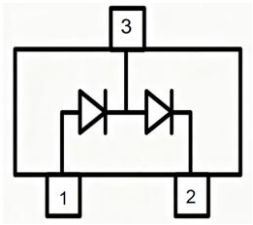
Product specification– August 27, 2026 V.0



Switching Diode

Features

- Moisture sensitivity level 1
- Reverse voltage：75V
- Package： SOT-323
- Terminals：Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Marking code：KJG.



Pin Configuration

Application

- Signal switching
- High frequency rectifier

Absolute Maximum Ratings (Ta = 25℃)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Forward Current	I_F	150	mA
Repetitive Peak Forward Current	I_{FRM}	500	mA
Non-repetitive surge peak forward current @t=8.3ms half-sine wave	I_{FSM}	2	A
Non-repetitive surge peak forward current @t=1ms square wave	I_{FSM}	2	A
Power Dissipation	P_D	200	mW
Junction Temperature	T_j	-55 to +150	^OC
Storage Temperature Range	T_{stg}	- 55 to + 150	^OC

Characteristics at Ta = 25 OC

Parameter	Symbol		Min	Max.	Unit
Reverse Voltage	V_R	I_R=100uA	75		V
Forward Voltage	V_F	I_F=1mA		0.715	V
Forward Voltage	V_F	I_F=10mA		0.855	V
Forward Voltage	V_F	I_F=50mA		1	V
Forward Voltage	V_F	I_F=150mA		1.25	V
Reverse leakage current	I_R	V_R=75V		2.5	uA
Diode Capacitance	C_j	V_R=0V, f=1MHz		2	pF
Reverse Recovery Time	T_{rr}	I_F=I_R=10mA，Irr=0.1*IR, RL=100Ω		4	ns

Thermal Characteristics

Parameter	Symbol	Value	Unit
Thermal Resistance from Junction to Ambient 1)	$R_{\theta J\text{-}A\ (1)}$	625	℃/W
Thermal resistance, junction-to-case	$R_{\theta J\text{-}C\ (1)}$	500	℃/W

Note:(1) Device mounted on PCB, single-sided copper，with standard footprint

Electrical Characteristic Curves

Figure 1. Power Derating Curve

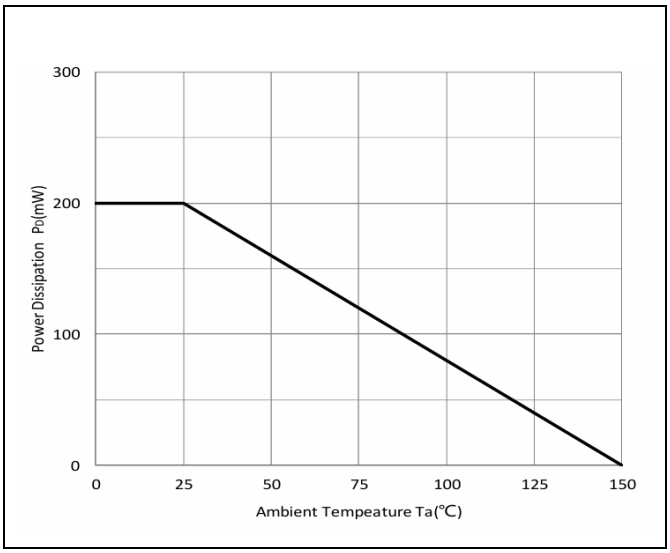


Figure 2. Capacitance characteristics

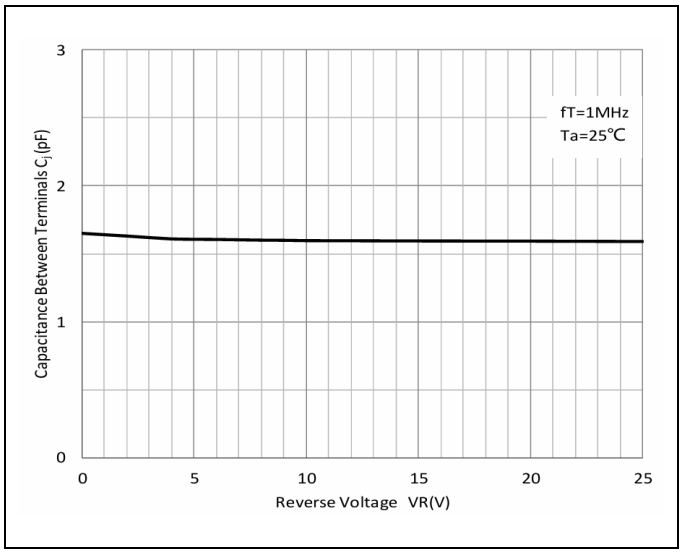


Figure 3. Reverse Characteristics

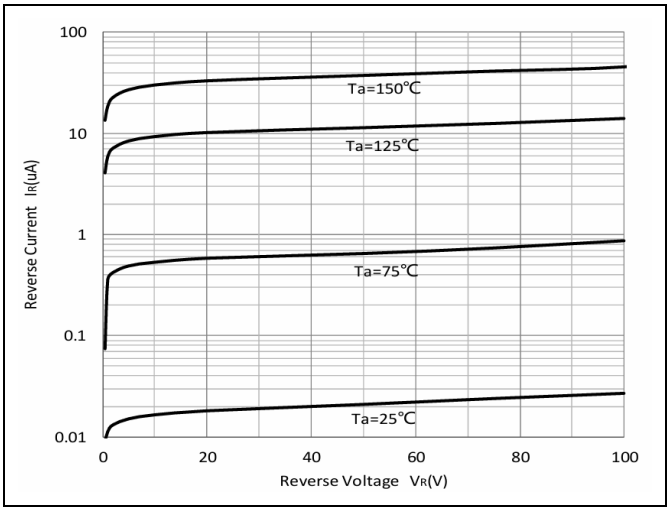
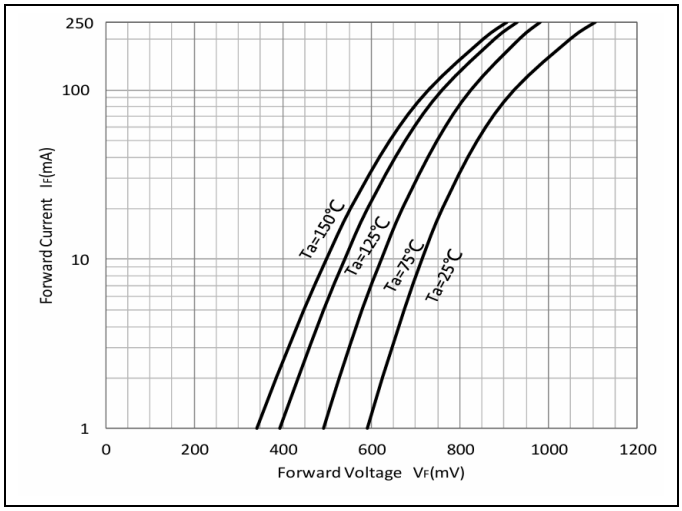
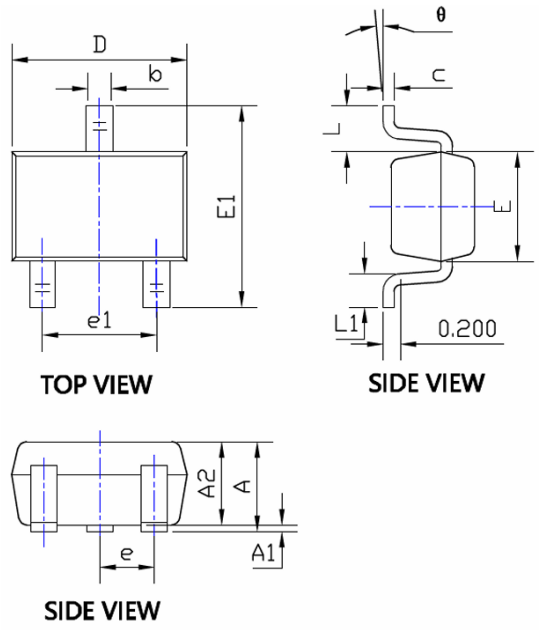


Figure 4. Forward Characteristics



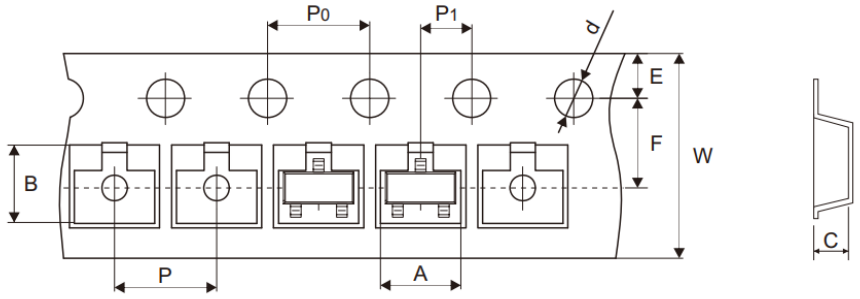
Dimensions (SOT-323)



Symbol	Dimension			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.10	0.035	0.043
A1	0.00	0.10	0.000	0.004
A2	0.90	1.00	0.035	0.039
b	0.15	0.40	0.006	0.016
c	0.10	0.25	0.004	0.01
D	1.80	2.20	0.071	0.087
E	1.15	1.35	0.045	0.053
E1	2.15	2.45	0.085	0.096
e	0.65TYP		0.026TYP	
e1	1.20	1.40	0.047	0.055
L	0.525REF		0.021REF	
L1	0.26	0.46	0.010	0.018
θ	0°	8°	0°	8°

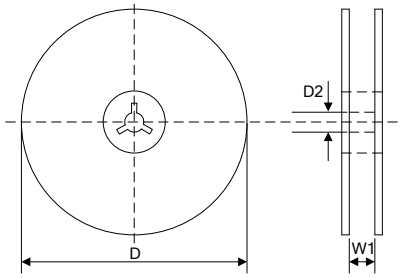
Packaging

Tape



Symbol	Dimension (mm)
W	8.00+0.30
P	4.00±0.10
P0	4.00±0.10
P1	2.00±0.10
E	1.75±0.10
F	3.50±0.10
A	3.15±0.10
B	2.76±0.10
C	1.25±0.10
d	Φ1.60±0.10

Reel



D	Φ178.0±2.0
D2	Φ13.3±0.30
W1	9.6±2.0
Quantity: 3000PCS	

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