

High Speed Switching Diodes



Features

- Moisture sensitivity level 1
- Reverse voltage: 300V
- Average forward current : 225mA

Application

- High frequency rectifier
- Signal switching

Mechanical data

- **Package:** SOD-123
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

■ Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Value
Device marking code			4P
Repetitive peak reverse voltage	V _{RRM}	V	100
Average Forward current	I _{FAV}	mA	225
Repetitive peak forward current	I _{FRM}	mA	625
Non-repetitive surge peak forward current @ t=1s half-sine wave	I _{FSM}	A	1
Non-repetitive surge peak forward current @ t=1us square wave			4
Power dissipation	P _D	mW	400
Junction temperature	T _J	°C	-55 to +150
Storage temperature	T _{STG}	°C	-55 to +150



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■ Electrical Characteristics (T_a=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Breakdown voltage	V _R	V	I _R =150uA	350		
Forward voltage	V _{F1}	V	I _F =20mA		0.78	0.87
	V _{F2}	V	I _F =100mA		0.93	1
	V _{F3}	V	I _F =200mA		1.03	1.25
Reverse leakage current	I _{R1}	nA	V _R =240V		30	100
	I _{R2}	uA	V _R =240V, T _J =150°C		35	100
Junction capacitance	C _j	pF	V _R =0V, f =1MHZ		1	5
Reverse recovery time	T _{rr}	ns	I _F = I _R =30mA, I _{rr} =3mA, R _L =100Ω			50

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	312.5
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	250

Note:

(1) Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 8mm*9mm copper pad areas



■ Characteristics

Fig 1: P_D -Ta Curve

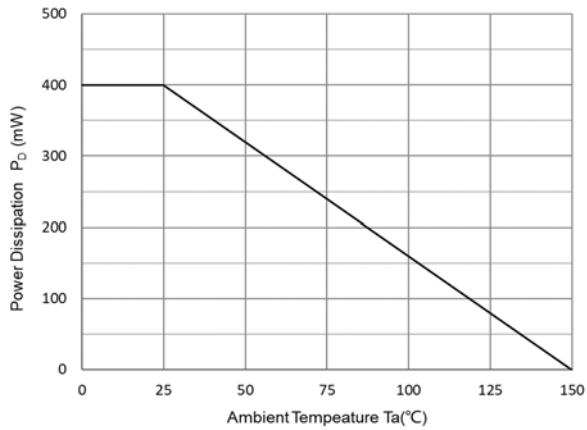


Fig 2: Capacitance Capability

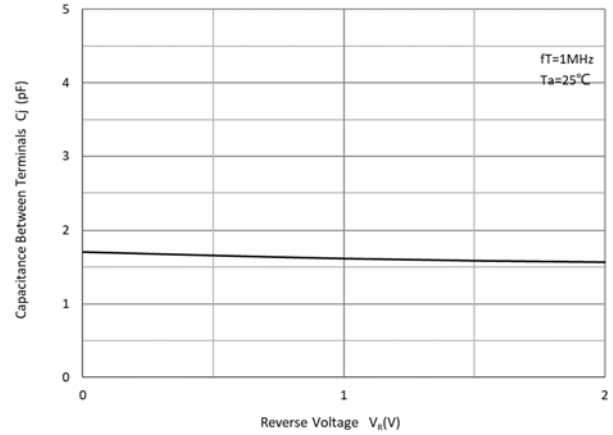


Fig 3: Typical Forward Characteristics

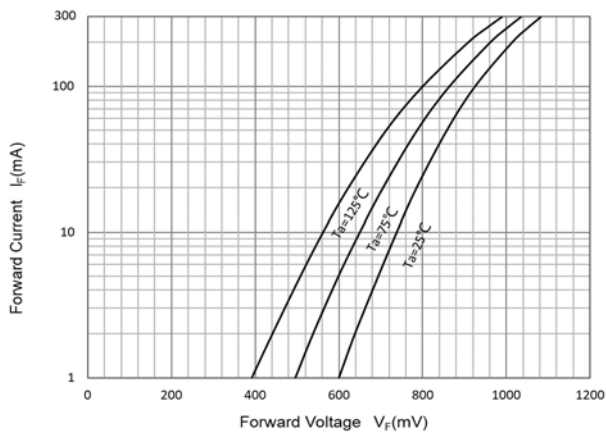
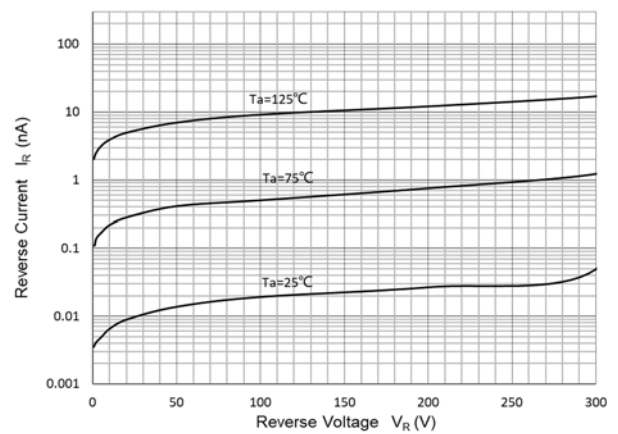


Fig 4: Typical Reverse Characteristics



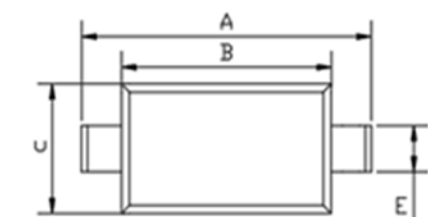


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■ Ordering Information

Preferred P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BAV3004W	F2	Approximate 0.011	3000	30000	120000	7" reel
BAV3004W	F3	Approximate 0.011	10000	/	210000	13" reel

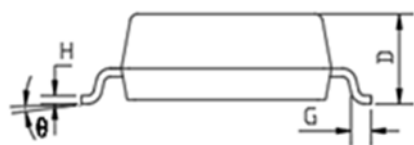
■ Outline Dimensions



TOP VIEW



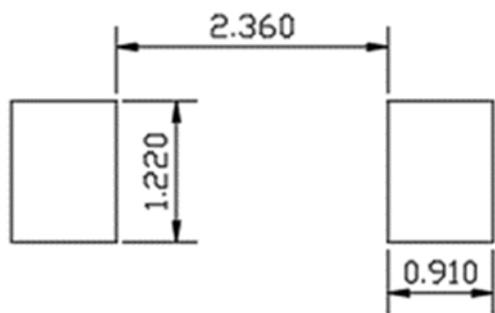
SIDE VIEW



SIDE VIEW

DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MM	MAX
A	0.140	0.152	3.550	3.850
B	0.100	0.112	2.550	2.850
C	0.055	0.071	1.400	1.800
D	0.037	0.053	0.950	1.350
E	0.020	0.028	0.510	0.710
G	0.006	0.018	0.150	0.450
H	0.003	0.010	0.080	0.250
J	0.000	0.006	0.000	0.150
θ	0	8°	0	8°

■ Suggested Pad Layout



UNIT: mm



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