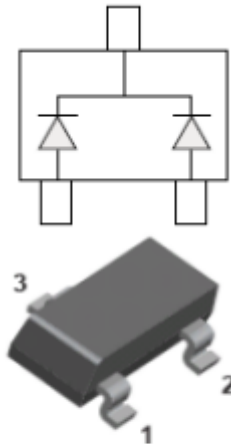


Small-Signal Fast Switching Diodes



SOT-323

Features

- Moisture sensitivity level 1
- Reverse voltage: 100V
- Average forward current :
single diode loaded 215mA
double diode loaded 125mA

Application

- Signal switching
- High frequency rectifier

Mechanical data

- **Package:** SOT-323
- **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			JX
Repetitive peak reverse voltage	V _{RRM}	V	100
Forward current @ single diode loaded	I _F	mA	215
Forward current @ double diode loaded			125
Non-repetitive surge peak forward current @ t=8.3ms half-sine wave	I _{FSM}	A	2
Non-repetitive surge peak forward current @ t=1ms square wave			2
Power dissipation	P _D	mW	200
Junction temperature	T _J	°C	-55 to +150
Storage temperature	T _{STG}	°C	-55 to +150



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

Parameter	Symbol	Unit	Conditions	Min	Typ	Max
Reverse voltage	V _R	V	I _R =100uA	100		
Forward voltage	V _{F1}	V	I _F =1mA			0.9
	V _{F2}	V	I _F =10mA			1.0
	V _{F3}	V	I _F =50mA			1.1
	V _{F4}	V	I _F =150mA			1.25
Reverse leakage current	I _R	nA	V _R =75V			5
Junction capacitance	C _j	pF	V _R =0V, f=1MHz			4
Reverse recovery time	T _{rr}	us	I _F =I _R =10mA, I _{rr} =0.1*I _R , R _L =100Ω			3

■ Thermal Characteristics

PARAMETER	Symbol	Unit	Value
Thermal resistance, junction-to-ambient	R _{θJ-A} ⁽¹⁾	°C/W	625
Thermal resistance, junction-to-case	R _{θJ-C} ⁽¹⁾	°C/W	500

Note:

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



■ Characteristics

Fig 1: P_D-T_a Curve

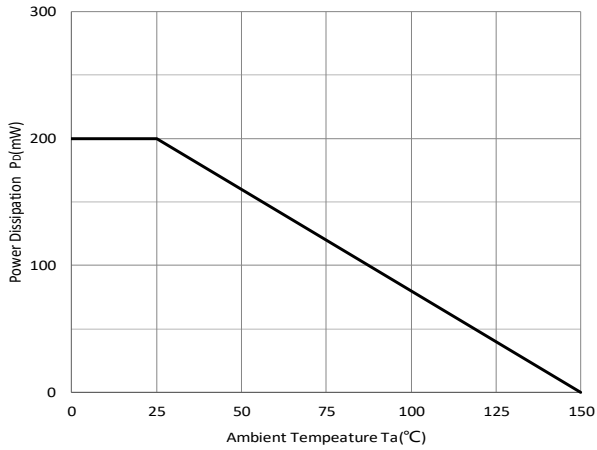


Fig 2: Capacitance Capability

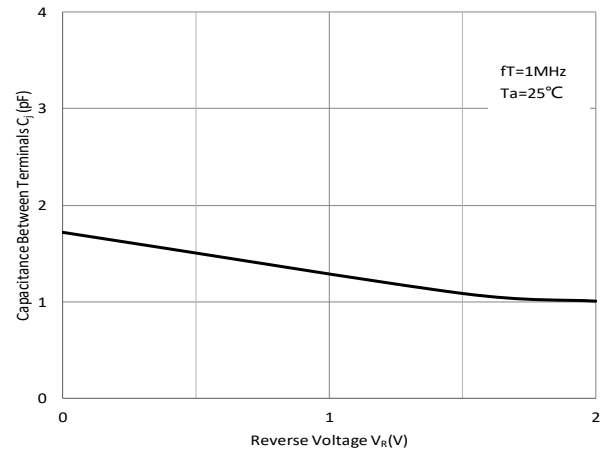


Fig 3: Typical Forward Characteristics

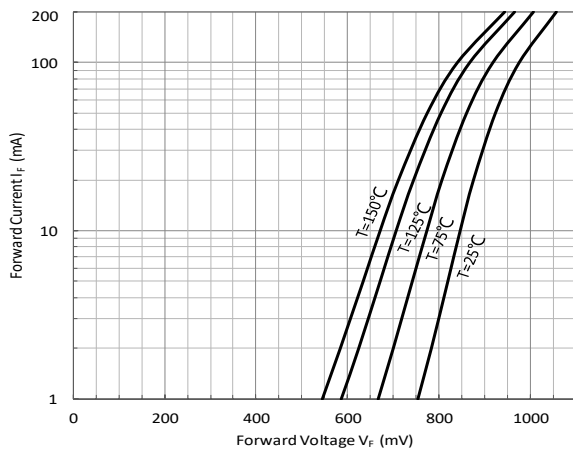
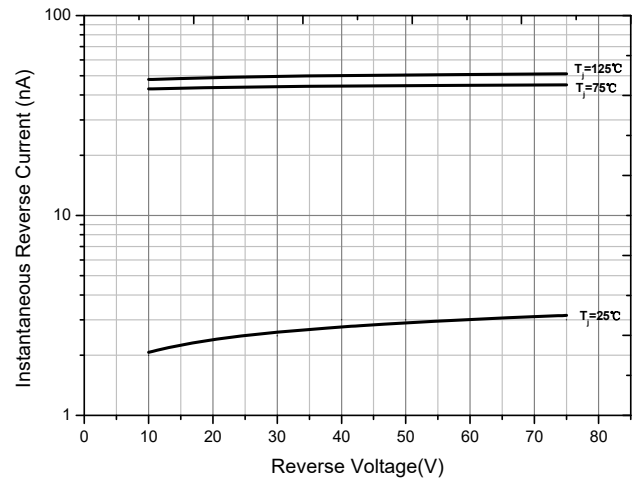


Fig 4: Typical Reverse Characteristics





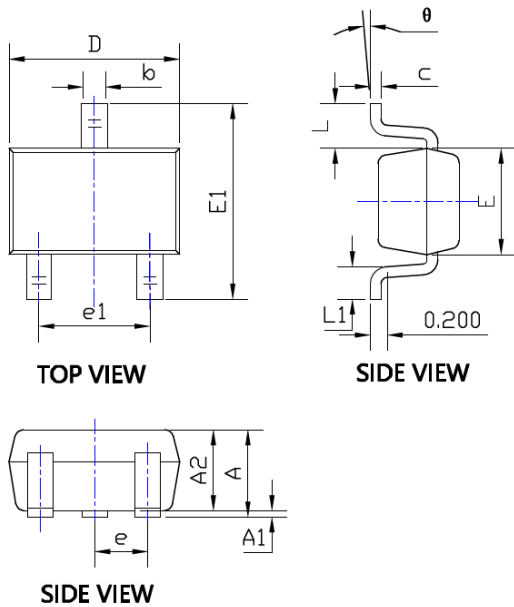
BAV170WT

RoHS
COMPLIANT

Ordering Information

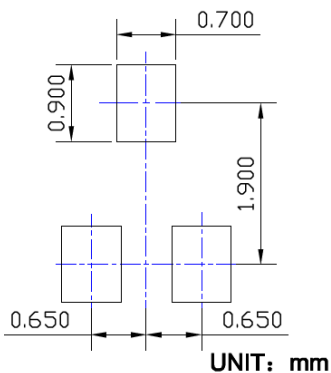
Prefered P/N	Packing code	Unit weight(g)	Minimum package(pcs)	Inner box quantity(pcs)	Outer carton quantity(pcs)	Delivery mode
BAV170WT	F2	Approximate 0.005	3000	30000	120000	7" reel

Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.016	0.150	0.400
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026TYP		0.650TYP	
e1	0.047	0.055	1.200	1.400
L	0.021REF		0.525REF	
L1	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

Suggested Pad Layout





Disclaimer

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