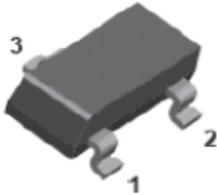
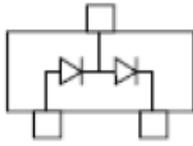


## Small-Signal Fast Switching Diode



**SOT-323**

### Features

- $V_R$  100V
- $I_{FAV}$  160mA

### Typical Applications

- Low-Leakage

### Mechanical Data

- **Package:** SOT323
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** K52

### ■ Maximum Ratings ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	$V_{RRM}$	V		85
Peak forward surge current	$I_{FSM}$	A	Non-Repetitive $t = 1 \mu\text{s}$	4
Average forward current	$I_{FAV}$	mA		160
Power dissipation	$P_{tot}$	mW		200
Thermal Resistance	$R_{thJA}$	$^\circ\text{C}/\text{W}$		625
Maximum junction temperature	$T_j$	$^\circ\text{C}$		150
Storage temperature range	$T_{stg}$	$^\circ\text{C}$		-55 ~ +150

### ■ Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	Conditions	Min	Typ	Max
Maximum Forward voltage	$V_F$	V	$I_F=1\text{mA}$			0.9
	$V_F$	V	$I_F=10\text{mA}$			1
	$V_F$	V	$I_F=50\text{mA}$			1.1
	$V_F$	V	$I_F=150\text{mA}$			1.25
Maximum Reverse current	$I_R$	nA	$V_R=75\text{V}$			5
Minimum Breakdown voltage	$V_R$	V	$I_R=100\mu\text{A}$	85		
Maximum Diode capacitance	$C_D$	pF	$V_R=V_F=0\text{V}$ , $f=1\text{MHz}$			4
Maximum Reverse recovery time	$t_r$	us	$I_F=10\text{mA}$ , $I_{rr}=0.1I_R$ , $R_L=100\Omega$			3



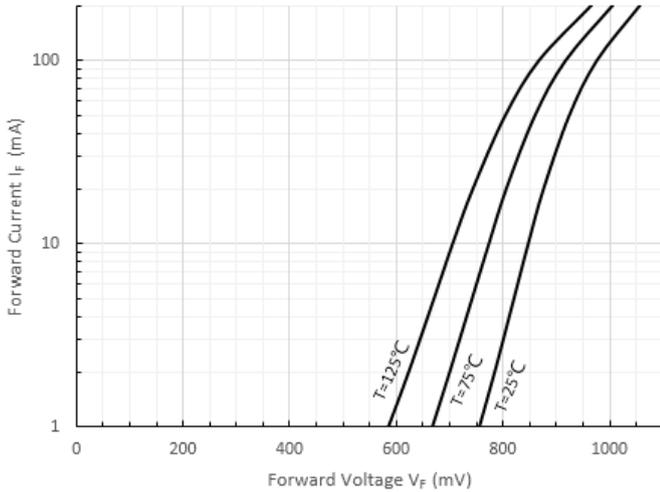
# BAV199WT

## Ordering Information (Example)

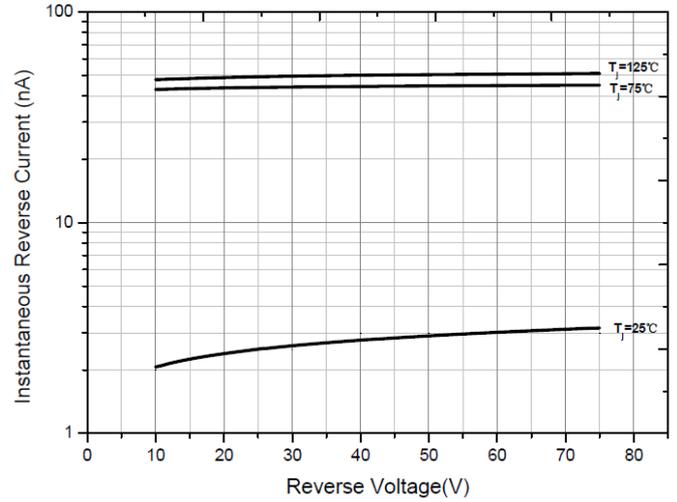
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAV199WT	F2	Approximate 0.005	3000	30000	120000	7" reel

## Characteristics (Typical)

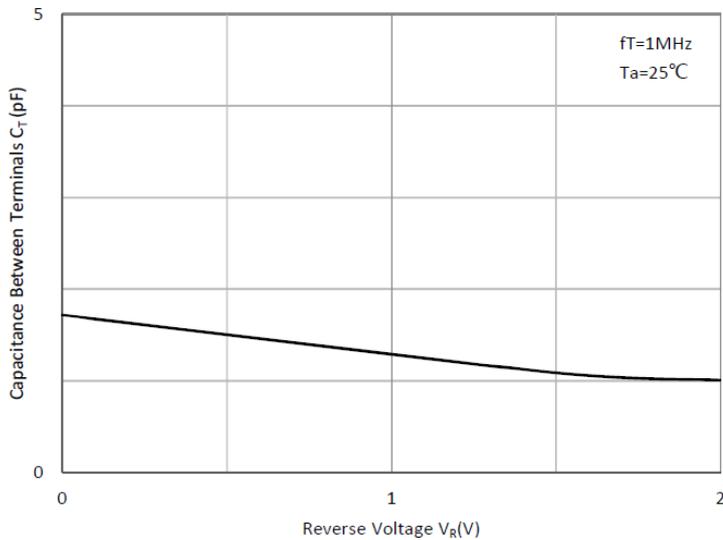
Forward Characteristics



Typical Reverse Characteristics



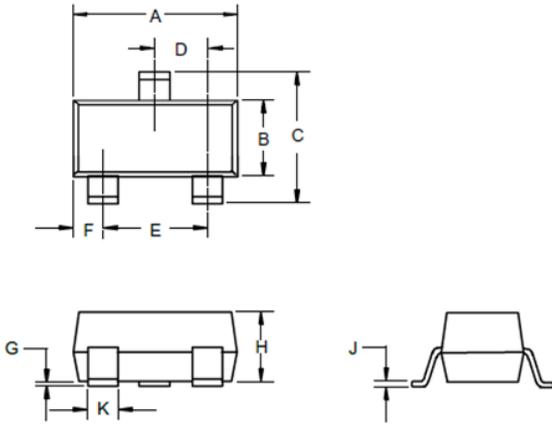
Capacitance Characteristics





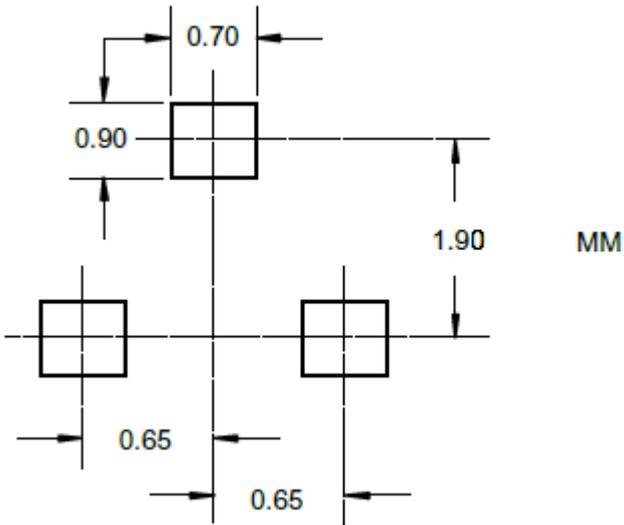
# BAV199WT

## ■ SOT-323 Package Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.071	0.087	1.80	2.20	
B	0.045	0.053	1.15	1.35	
C	0.083	0.096	2.10	2.45	
D	0.026Nominal		0.65Nominal		
E	0.047	0.055	1.20	1.40	
F	0.012	0.016	0.30	0.40	
G	0.000	0.004	0.00	0.10	
H	0.035	0.039	0.90	1.00	
J	0.004	0.010	0.10	0.250	
K	0.006	0.016	0.15	0.40	

## ■ SOT-323 Soldering Footprint





## BAV199WT

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