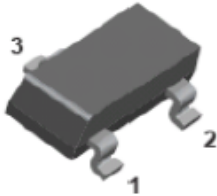
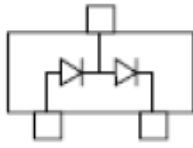


Small-Signal Fast Switching Diode



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_{rr}	us	$I_F=10\text{mA}$, $I_{rr}=0.1I_R$, $R_L=100\Omega$			3



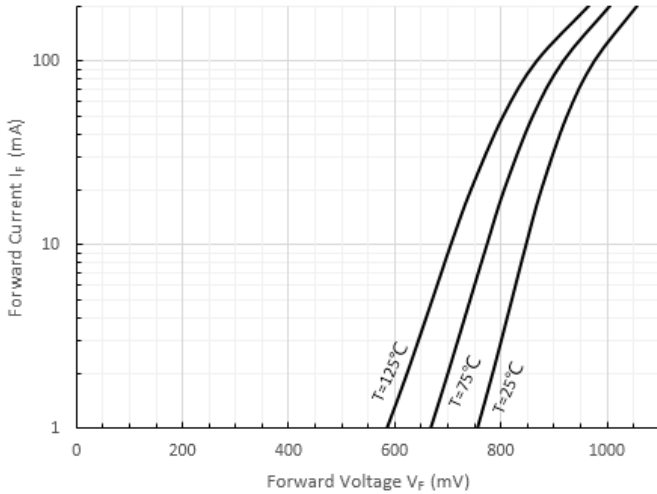
BAV199WT

Ordering Information (Example)

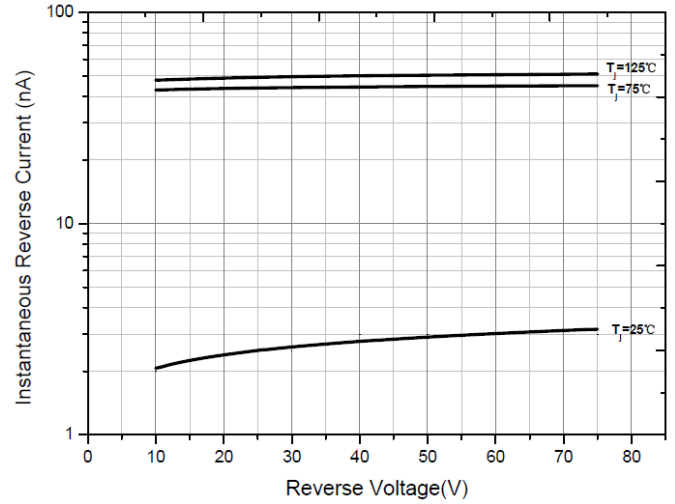
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAV199WT	F2	Approximate 0.005	3000	30000	120000	7" reel

Characteristics (Typical)

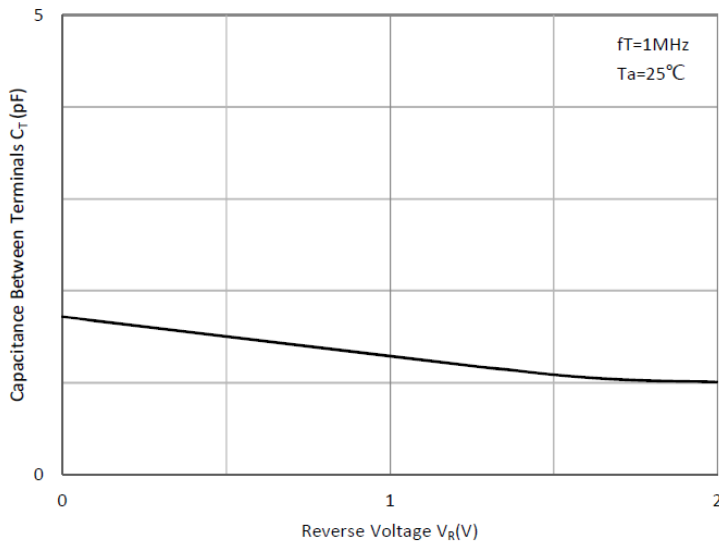
Forward Characteristics



Typical Reverse Characteristics



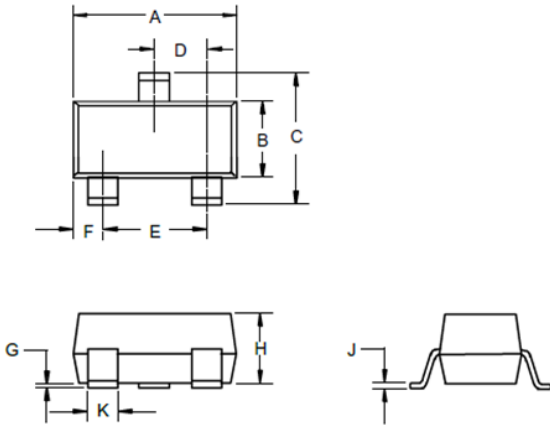
Capacitance Characteristics





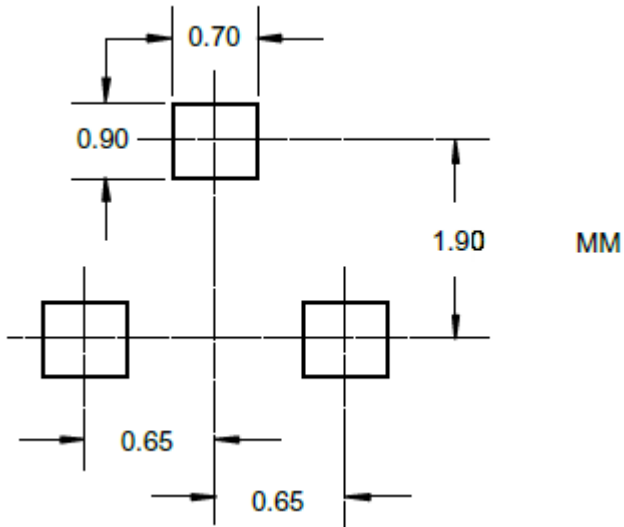
BAV199WT

■ 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





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