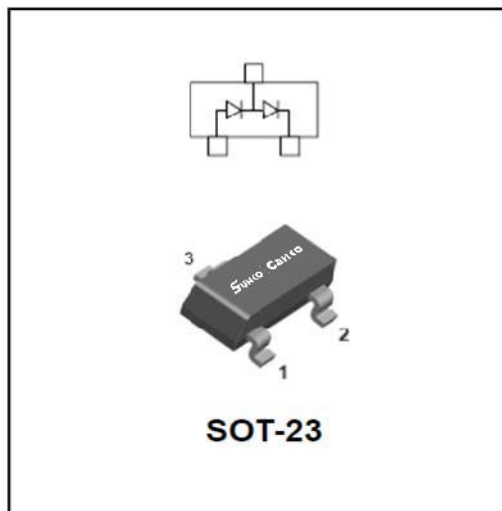


Small-Signal Fast Switching Diodes



Features

- V_R 100V
- I_{FAV} single diode loaded 215mA
double diode loaded 125mA

Typical Applications

- Low-Leakage

Mechanical Data

- **Package:** SOT23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** JY

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

PARAMETER	SYMBOL	UNIT	Conditions	VALUE
Repetitive peak reverse voltage	V_{RRM}	V		100
Reverse voltage	V_R	V	$I_R=100\mu\text{A}$	100
Peak forward surge current	I_{FSM}	A	Non-Repetitive $t = 1 \mu\text{s}$	4
Average forward current	I_{FAV}	mA	single diode loaded	215
			double diode loaded	125
Power dissipation	P_{tot}	mW		250
Maximum junction temperature	T_j	$^\circ\text{C}$		150
Storage temperature range	T_{stg}	$^\circ\text{C}$		-55 to +150

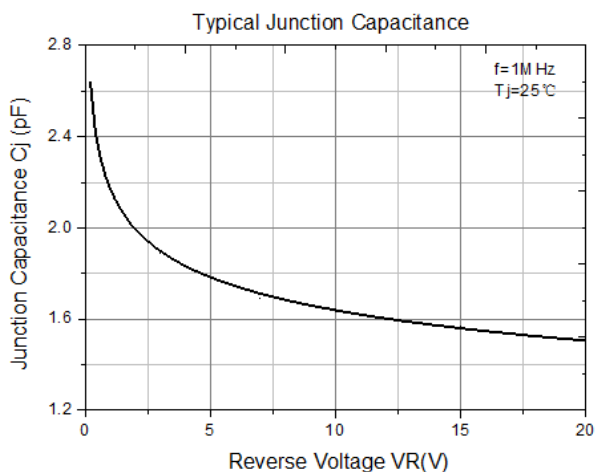
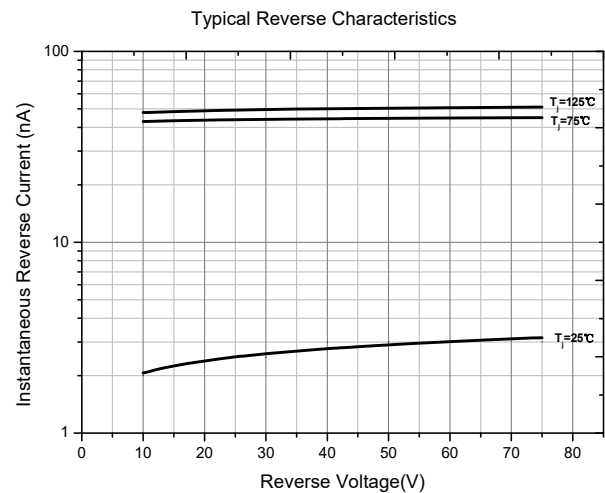
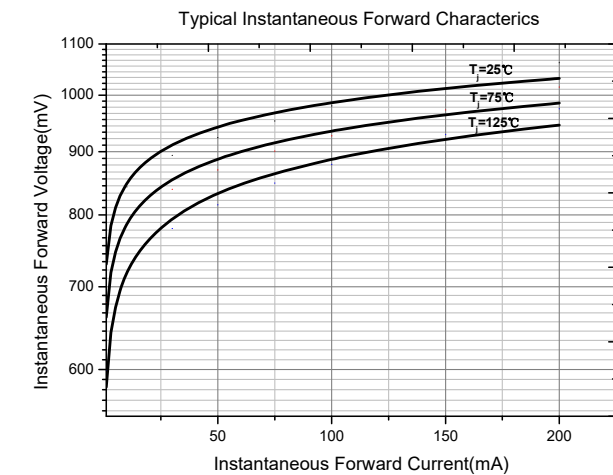
■Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Max
Breakdown Voltage	V_R	V	$I_R=100\mu\text{A}$	100	
Forward Voltage	V_F	V	$I_F=1\text{mA}$		0.9
			$I_F=10\text{mA}$		1.0
			$I_F=50\text{mA}$		1.1
			$I_F=150\text{mA}$		1.25
Reverse Leakage Current	I_R	nA	$V_R=75\text{V}$		5
Capacitance	C	pF	$V_R=0\text{V}, f=1\text{MHz}$		4
Reverse Recovery Time	T_{rr}	μs	$I_F=I_R=10\text{mA}, I_{rr}=0.1 \cdot I_R, R_L=100\Omega$		3

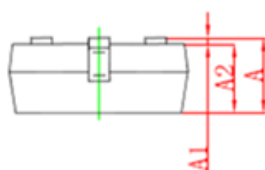
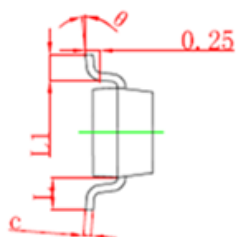
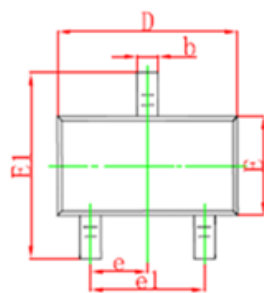
■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAV199	F2	Approximate 0.008	3000	30000	120000	7" reel

■ Characteristics (Typical)

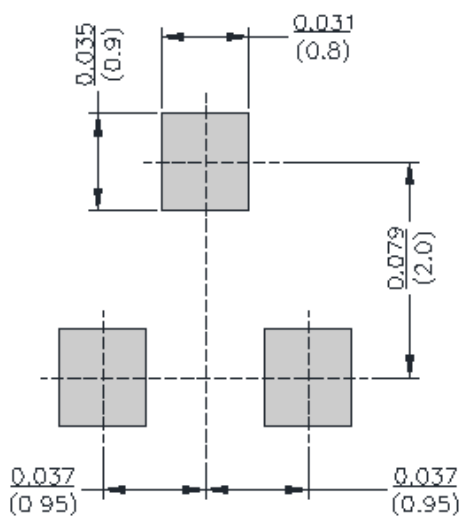


■SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■SOT-23 Suggested Pad Layout



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