



### ■ FEATURES

- Epoxy meets UL-94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Fast switching speed
- High Conductance
- Surface mount package ideally Suited for Automatic Insertion

### ■ MECHANICAL DATA

- **Package:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end
- **Marking:** A7

### ■ MAXIMUM RATINGS (T<sub>a</sub>=25°C Unless otherwise specified)

Item	Symbol	Unit	Value
Peak Reverse Voltage	V <sub>RRM</sub>	V	100
Reverse Voltage	V <sub>R</sub>	V	75
Forward Continuous Current@f>=50Hz, Per Leg	I <sub>F</sub>	mA	200
Non-Repetitive Peak Forward Surge Current @8.3ms, Half sine-wave, Per Leg	I <sub>FSM</sub>	A	2.0
Power Dissipation	P <sub>D</sub>	mW	350
Maximum Thermal Resistance	R <sub>thJA</sub>	°C/W	357
Operating Junction Temperature	T <sub>J</sub>	°C	150
Storage Temperature	T <sub>STG</sub>	°C	-55 to +150

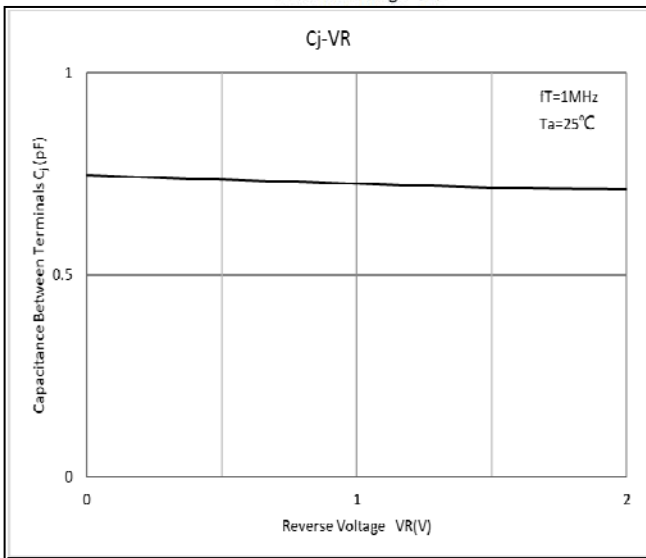
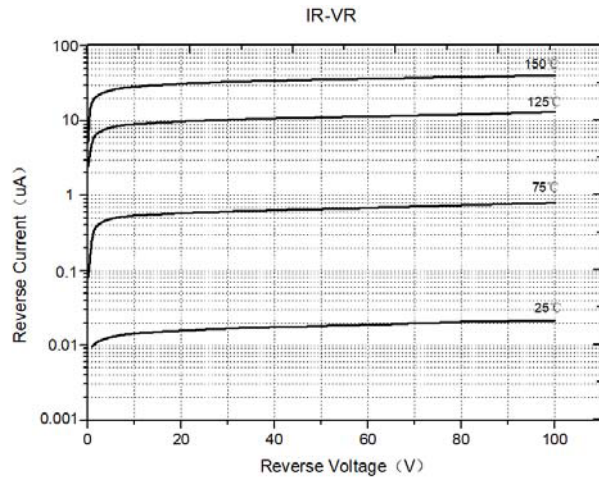
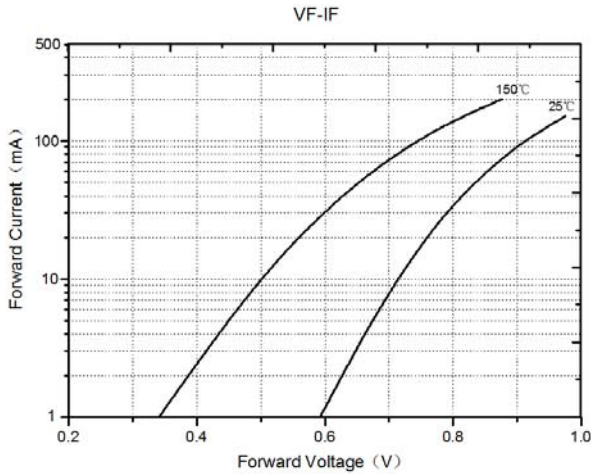
### ■ ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C Unless otherwise specified)

Item	Symbol	Unit	Conditions	Value
Reverse Voltage	V <sub>R</sub>	V	I <sub>R</sub> =100uA	75
Forward Voltage	V <sub>F</sub>	V	I <sub>F</sub> =1mA	0.715
			I <sub>F</sub> =10mA	0.855
			I <sub>F</sub> =50mA	1.00
			I <sub>F</sub> =150mA	1.25
Maximum DC Reverse Current	I <sub>R</sub>	uA	V <sub>R</sub> =75V	2.5
Typical Junction Capacitance	C <sub>J</sub>	pF	f=1.0MHz, V <sub>R</sub> =0V	4
Reverse Recovery Time	T <sub>rr</sub>	ns	I <sub>F</sub> =10mA, V <sub>R</sub> =6V, R <sub>L</sub> =100Ω, I <sub>rr</sub> =1mA	4

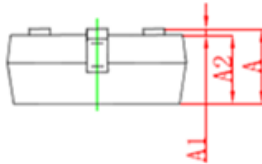
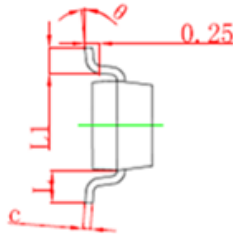
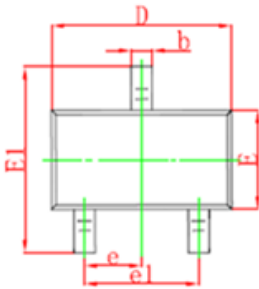
■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAV99	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°