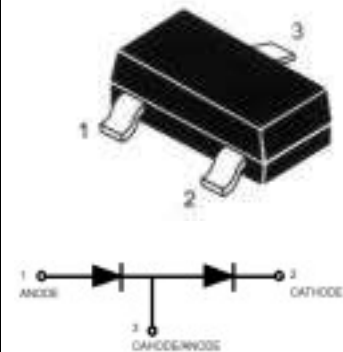


- * Fast Switching Speed
- * High Conductance
- * Surface Mount Package Ideally Suited for Automatic Insertion

ABSOLUTE MAXIMUM RATINGS at T=25°C

Characteristic	Symbol	Rating	Unit
Reverse Voltage	V_R	70	V
RMS Reverse Voltage	$V_{R(RMS)}$	49	V
Forward Current	I_F	215	mA
Non-Repetitive Peak Forward Current	I_{FSM}		A
t = 1.0 us		2.0	
t = 1.0 ms		1.0	
t = 1.0 S		0.5	
Peak Forward Surge Current	$I_{FM(surge)}$	500	mA
Power Dissipation (Note)	P_D	225	mW
Alumina Substrate, T _A = 25°C		1.8	mW/°C
Derate Above 25°C			
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-65-150	°C

Package:SOT-23



ELECTRICAL CHARACTERISTICS at T_a=25°C

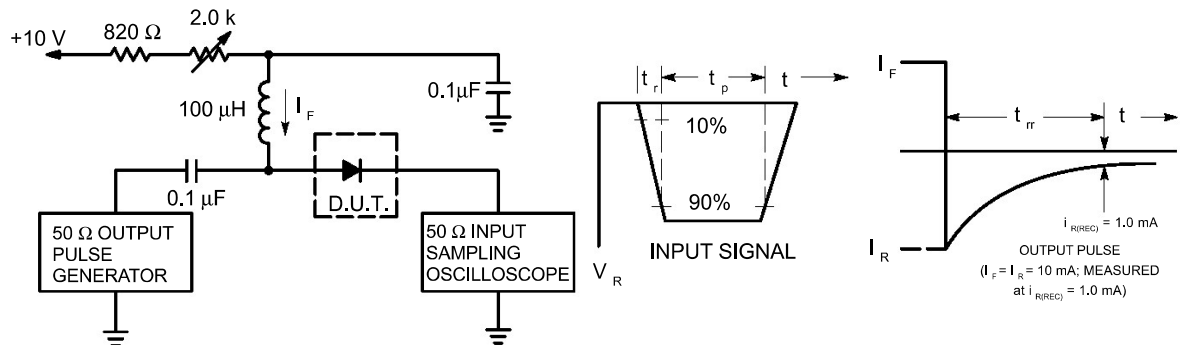
Characteristic	Symbol	Min	Max	Unit	Test Conditions
Forward Voltage	V_F		715	mV	$I_F=1.0mA$
			855	mV	$I_F=10mA$
			1.0	V	$I_F=50mA$
			1.25	V	$I_F=150mA$
Reverse Voltage Leakage Current	I_R		2.5	uA	$V_R=70V$
Capacitance	C_j		3.0	PF	$V_R=0$ f=1.0MHz
Reverse Recovery Time	T_{rr}		6.0	nS	$I_F=10mA$ to $I_{RR}=1.0mA$ $V_R=6.0V$ $R_L=100\Omega$

Note:Diode On Ceramic Substrate

10mm × 8.0mm × 0.7mm DEVICE MARKING: A7



BAV99



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
2. Input pulse is adjusted so $I_{R(\text{peak})}$ is equal to 10mA.
3. $t_p \gg t_{rr}$

Figure 1. Recovery Time Equivalent Test Circuit

CURVES APPLICABLE TO EACH DIODE

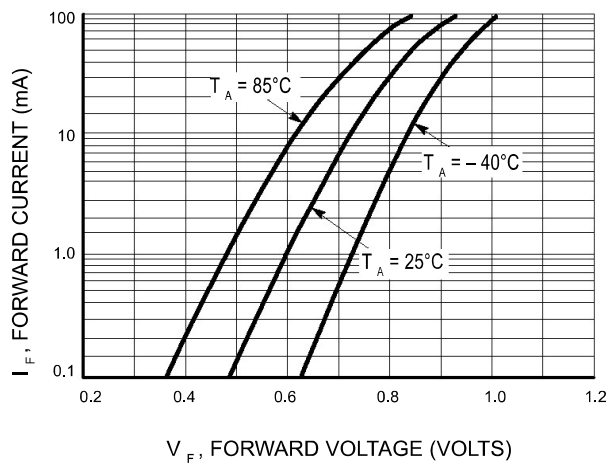


Figure 2. Forward Voltage

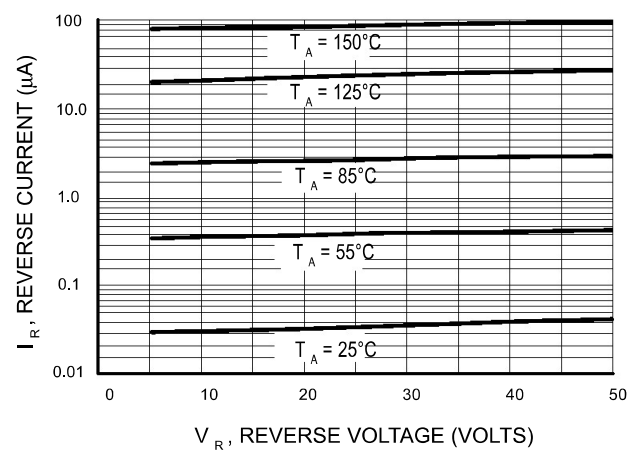


Figure 3. Leakage Current

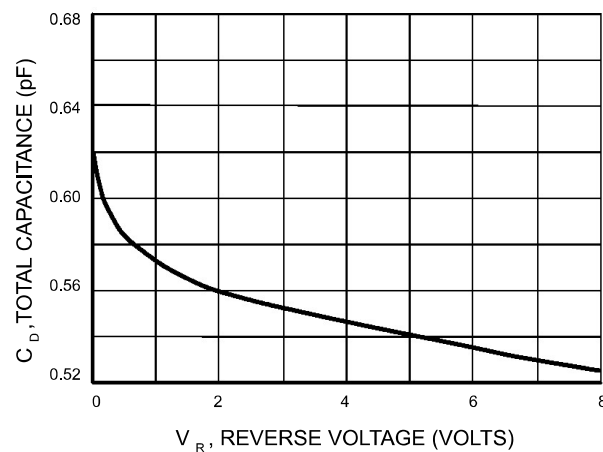
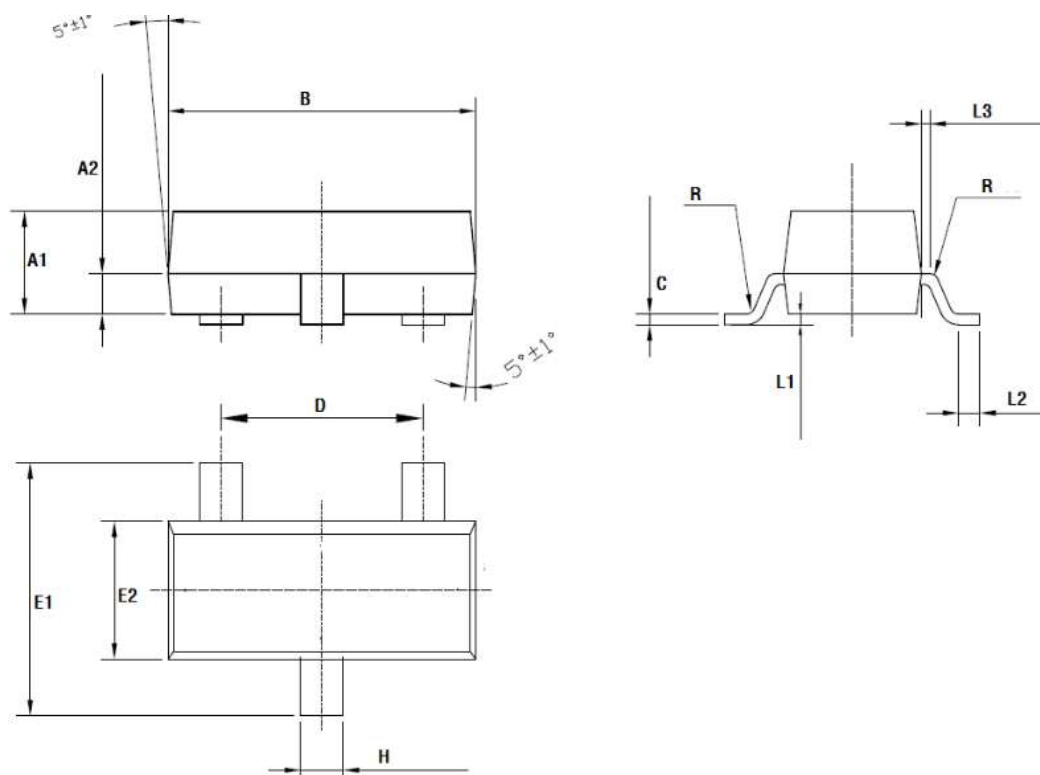
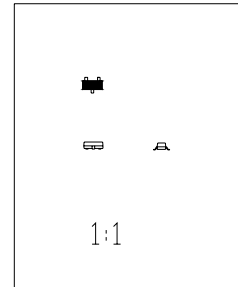
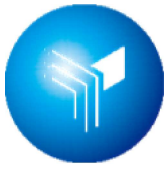


Figure 4. Capacitance

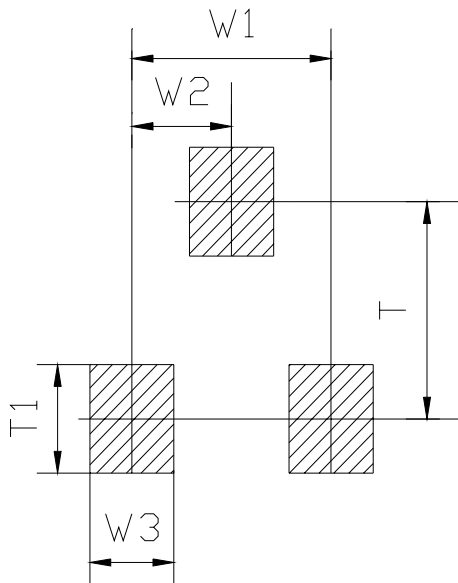


Symbol	Dimensions in Millimeters			内部结构 STYLS	管脚 PIN		
	Min	Nominal	Max		1 脚	2 脚	3 脚
A1	0.900	0.950	1.000	6	基极 BASE	发射极 EMITTER	集电极 COLLCTOR
A2	0.350	0.380	0.410				
B	2.800	2.900	3.000	8	阳极 ANODE	不连接 NO- CONNECTION	阴极 CATHODE
C	0.080	0.100	0.150				
D	1.800	1.900	2.000	9	阳极 ANODE	阳极 ANODE	阴极 CATHODE
E1	2.200	2.400	2.600				
E2	1.200	1.300	1.400	11	阳极 ANODE	阴极 CATHODE	阳极-阴极 ANODE-CATHODE
H	0.300	0.400	0.500				
L1	0.000		0.100	12	阴极 CATHODE	阴极 CATHODE	阳极 ANODE
L2	0.200						
L3	0.030	0.080	0.130	18	不连接 NO- CONNECTION	阴极 CATHODE	阳极 ANODE
R	0.080TYP						
				19	阴极 CATHODE	阳极 ANODE	阴极-阳极 CATHODE-ANODE



OUTSIDE

Scale 1:1 on letter size paper



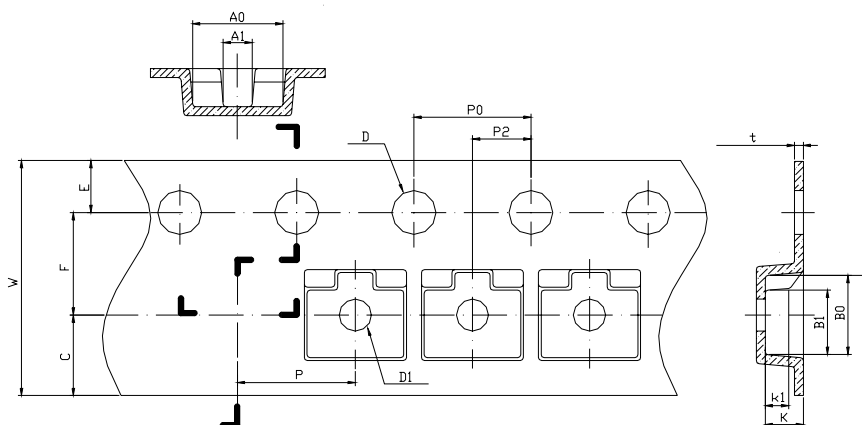
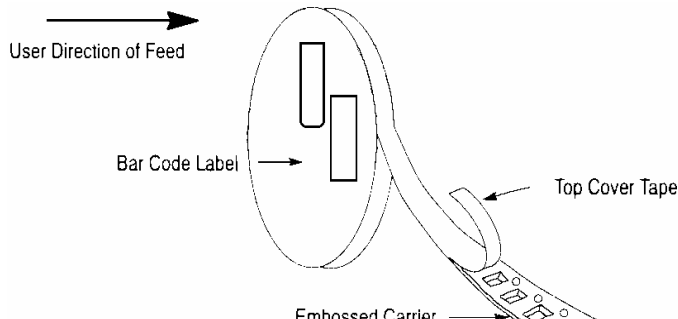
FOOTPRINTS FOR SOLDERING

Symbol	Dimensions in Millimeters	Dimensions in Inches
	Nominal	Nominal
W1	1.900	0.0748
W2	0.950	0.0374
W3	0.800	0.0315
T	2.000	0.0787
T1	1.000	0.0394



SOT-23 TAPE AND REEL DATA

SOT-23 PACKAGING:



Symbol	Dimensions in Millimeters			Dimensions in Inches		
	Minimum	Nominal	Maximum	Minimum	Nominal	Maximum
A0	3.000	3.150	3.300	0.1181	0.1240	0.1299
A1	0.950	1.100	1.250	0.0374	0.0433	0.0492
B0	2.670	2.770	2.870	0.1051	0.1090	0.1130
B1	2.000	2.150	2.300	0.0787	0.0846	0.0906
C	2.750TYP			0.1083TYP		
D	1.350	1.500	1.650	0.0531	0.0591	0.0650
D1	0.900	1.050	1.150	0.0354	0.0394	0.0453
E	1.650	1.750	1.850	0.0650	0.0689	0.0728
F	3.400	3.500	3.600	0.1339	0.1378	0.1417
K	1.020	1.220	1.420	0.0402	0.0480	0.0559
K1	0.850TYP			0.03346TYP		
P	3.900	4.000	4.100	0.1535	0.1575	0.1614
P0	3.900	4.000	4.100	0.1535	0.1575	0.1614
P010	39.800	40.000	40.200	1.5669	1.5748	1.5827
P2	1.950	2.000	2.050	0.0768	0.0787	0.0807
t	0.190	0.210	0.230	0.0075	0.0083	0.0098
W	7.900	8.000	8.300	0.3110	0.3150	0.3268