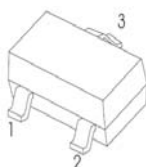


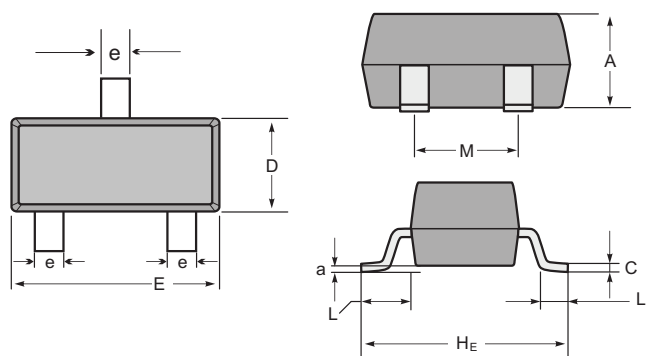
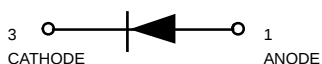


FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.



SOT-23



SOT-23 mechanical data

UNIT		A	C	D	E	H _E	e	M	L	L ₁	a
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0
	min	35	3	47	110	87	12	67			6

MAXIMUM RATINGS(T_a = 25°C)

Parameter	Symbol	Limits	Unit
Continuous Reverse Voltage	VR	75	V
Peak Forward Current	IF	200	mA
Peak Forward Surge Current	IFSM	500	mA

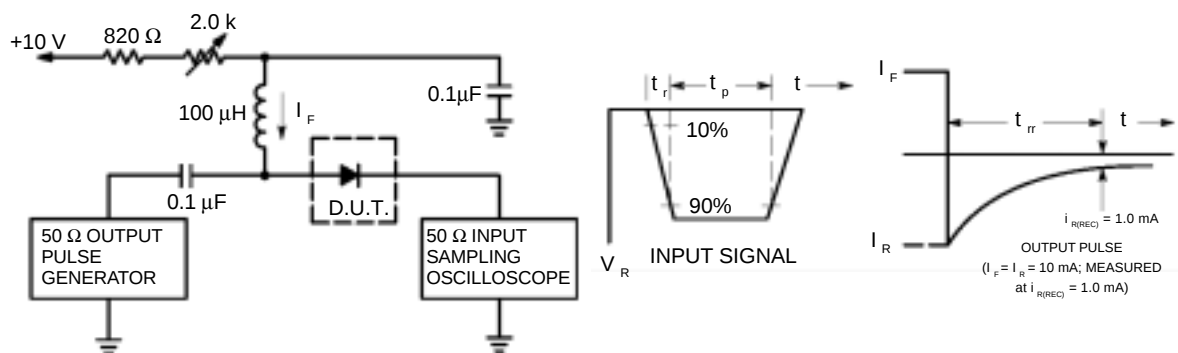
THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation FR- 5 Board, (Note 1) T _A = 25°C	PD	225	mW
Derate above 25°C		1.8	mW/°C
Thermal Resistance, Junction to Ambient	R _{θJA}	556	°C/W
Total Device Dissipation Alumina Substrate, (Note 2) T _A = 25°C	PD	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance, Junction to Ambient	R _{θJA}	417	°C/W
Junction and Storage Temperature	T _J , T _{stg}	-55~+150	°C

BAS16

ELECTRICAL CHARACTERISTICS (Ta= 25°C)

CHARACTERISTICS	Symbol	Min	Max	Unit
Reverse Voltage Leakage Current (VR=75V) (VR=75V, TJ = 150°C) (VR=25V, TJ = 150°C)	IR	- - -	1 50 30	μA
Reverse Breakdown Voltage (IBR = 100 μA)	VBR	75	-	V
Forward voltage (IF =1mA) (IF =10mA) (IF =50mA) (IF =150mA)	VF	- - - -	715 855 1000 1250	mV
Diode capacitance (f=1MHz,VR =0)	Cd	-	2	pF
Forward Recovery Voltage (IF = 10 mA, tr = 20ns)	VFR	-	1.75	V
Reverse Recovery Time (IF = IR = 10mA, RL = 50 Ω)	Trr	-	6	nS
Stored Charge (IF = 10 mA to VR = 5.0V, RL = 500 Ω)	QS	-	45	pC



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

Figure 1. Recovery Time Equivalent Test Circuit

RATING AND CHARACTERISTIC CURVES (BAS16)

