

1. FEATURES

- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.

2. DEVICE MARKING AND RESISTOR VALUES

Device	Marking	Shipping
BAS21H	JS	3000/Tape&Reel

3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Continuous Reverse Voltage	VR	250	V
Peak Forward Current	IF	200	mA
Repetitive Peak Forward Surge Current (tp=1ms, δ=0.25)	IFRM	625	mA
Non-Repetitive Peak Forward Surge Current (tp =1μs)	IFSM	9	A
(tp =100μs)		3	A
(tp =10ms)		1.7	A

4. THERMAL CHARACTERISTICS

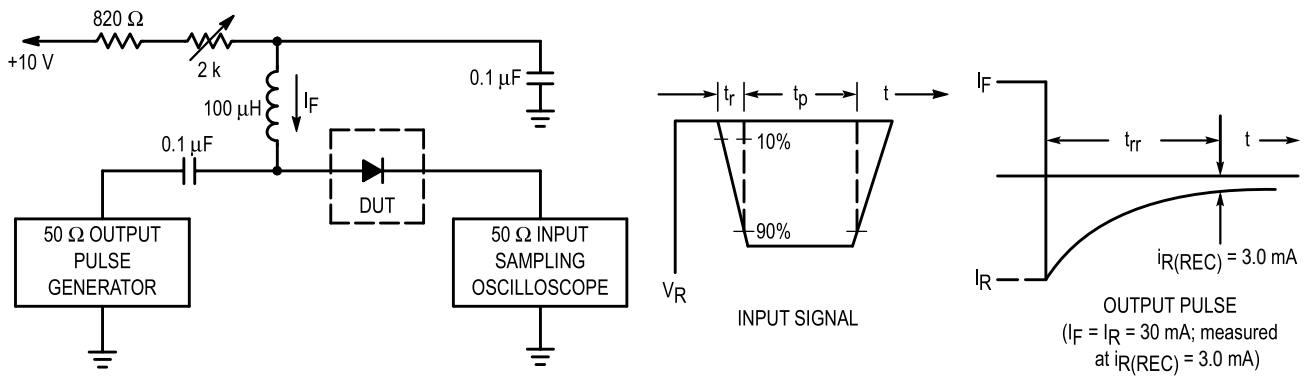
Parameter	Symbol	Limits	Unit
Total Device Dissipation FR- 5 Board, (Note 1) TA = 25°C	PD	200	mW
Derate above 25°C		1.57	mW/°C
Thermal Resistance, Junction to Ambient	RθJA	635	°C/W
Junction and Storage Temperature Range	TJ , Tstg	-55~+150	°C

1. FR-5 Minimum Pad



5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

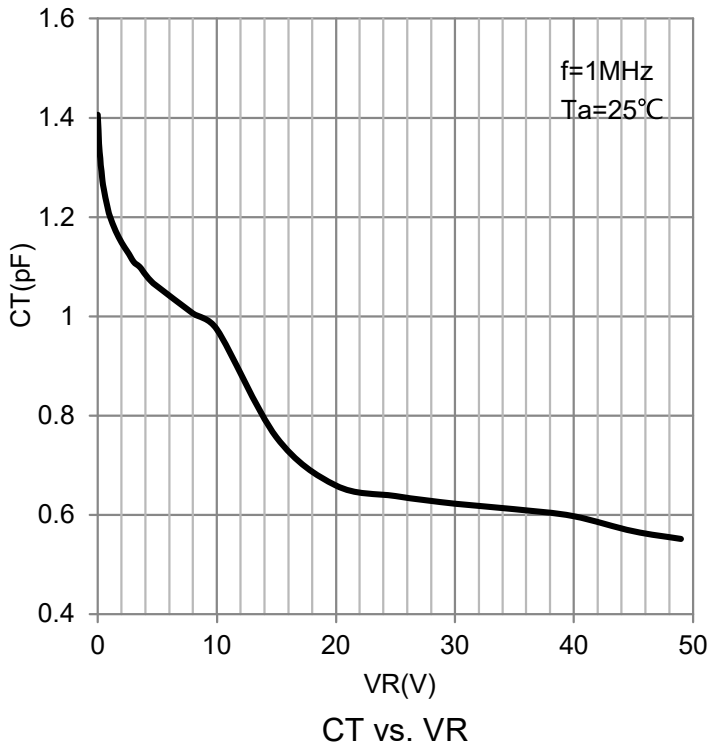
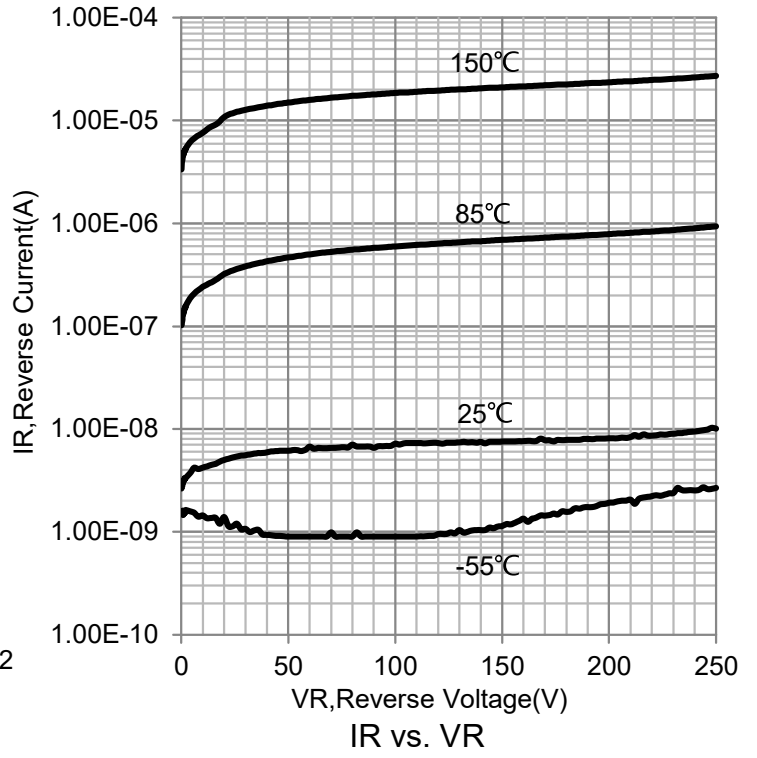
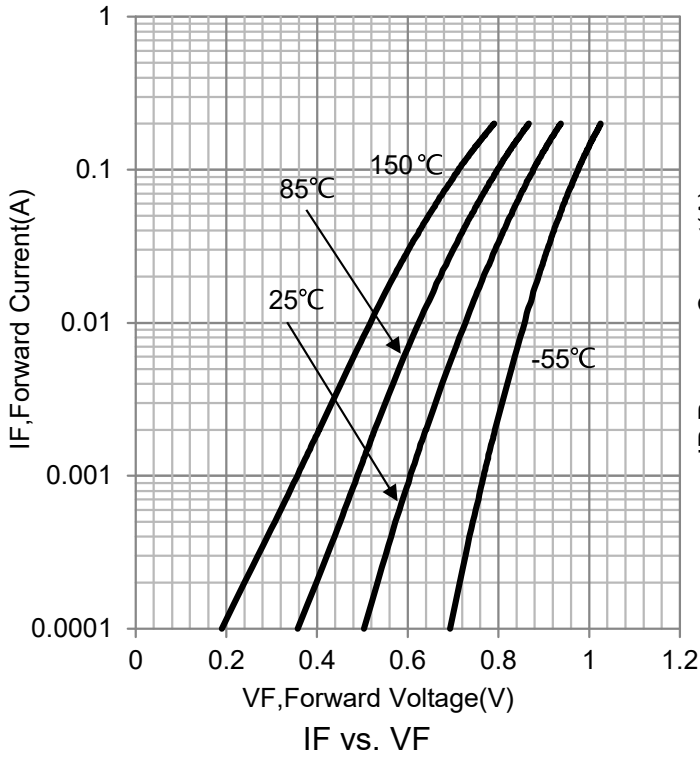
CHARACTERISTICS	Symbol	Min	Max	Unit
Reverse Voltage Leakage Current (VR=200V) (VR=200V, TJ = 150°C)	IR	- -	0.1 100	μA
Reverse Breakdown Voltage (IBR = 100 μA)	VBR	250	-	V
Forward voltage (IF = 100mA) (IF = 200mA)	VF	- -	1000 1250	mV
Diode capacitance (f=1MHz, VR = 0)	Cd	-	5	pF
Reverse Recovery Time (IF = IR = 30mA, RL = 100 Ω)	Trr	-	50	nS



- Notes: 1. A 2.0 kΩ variable resistor adjusted for a Forward Current (IF) of 30 mA.
 2. Input pulse is adjusted so IR(peak) is equal to 30 mA.
 3. tp >> trr

Figure 1. Recovery Time Equivalent Test Circuit

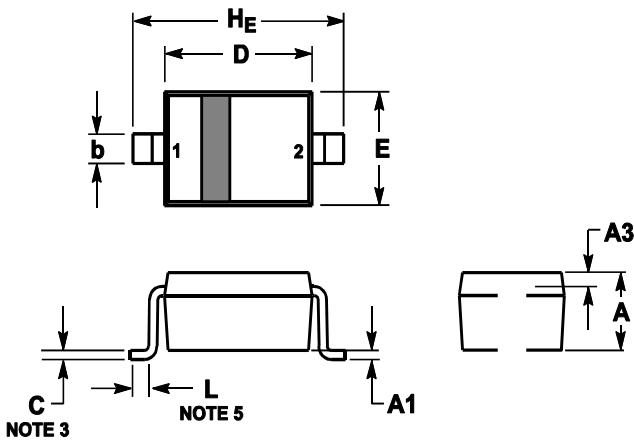

6.ELECTRICAL CHARACTERISTICS CURVES



7. OUTLINE AND DIMENSIONS

Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.8	0.9	1	0.031	0.035	0.04
A1	0	0.05	0.1	0	0.002	0.004
A3	0.15REF			0.006REF		
b	0.25	0.32	0.4	0.01	0.012	0.016
C	0.089	0.12	0.177	0.003	0.005	0.007
D	1.6	1.7	1.8	0.062	0.066	0.07
E	1.15	1.25	1.35	0.045	0.049	0.053
L	0.08			0.003		
H_E	2.3	2.5	2.7	0.09	0.098	0.105

8. SOLDERING FOOTPRINT
