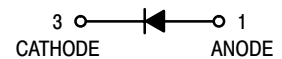
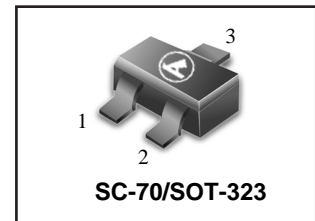


# Silicon Switching Diode

**LBAS16WT1**

**MAXIMUM RATINGS (T<sub>A</sub> = 25°C)**

Rating	Symbol	Max	Unit
Continuous Reverse Voltage	V <sub>R</sub>	75	V
Recurrent Peak Forward Current	I <sub>R</sub>	200	mA
Peak Forward Surge Current Pulse Width = 10 μs	I <sub>FM(surge)</sub>	500	mA
Total Power Dissipation, One Diode Loaded T <sub>A</sub> = 25°C Derate above 25°C Mounted on a Ceramic Substrate (10 x 8 x 0.6 mm)	P <sub>D</sub>	200 1.6	mW mW/°C
Operating and Storage Junction Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150	°C

**THERMAL CHARACTERISTICS**

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Ambient One Diode Loaded Mounted on a Ceramic Substrate (10 x 8 x 0.6 mm)	R <sub>θJA</sub>	0.625	°C/mW

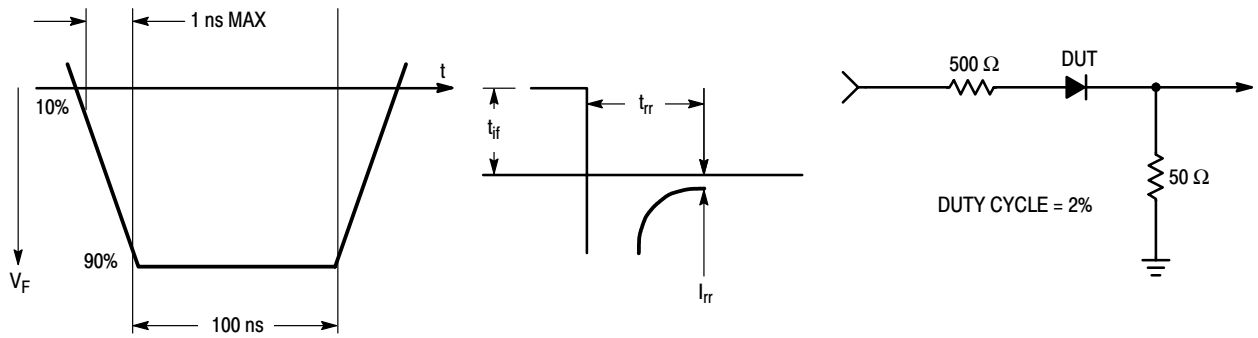
**DEVICE MARKING**

LBAS16WT1 = A6

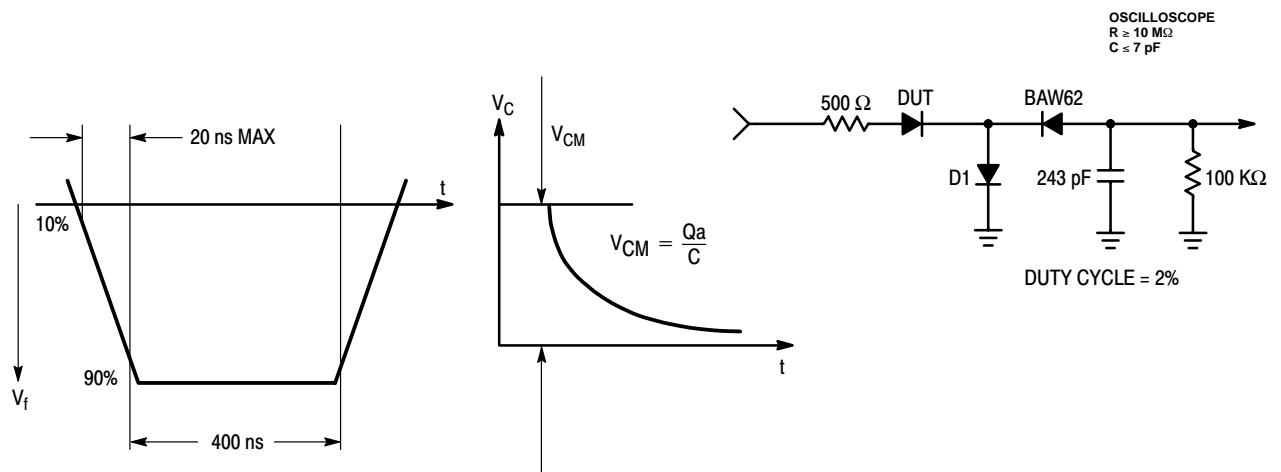
**ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise noted)**

Characteristic	Symbol	Min	Max	Unit
Forward Voltage (I <sub>F</sub> = 1.0 mA) (I <sub>F</sub> = 10 mA) (I <sub>F</sub> = 50 mA) (I <sub>F</sub> = 150 mA)	V <sub>F</sub>	—	715 866 1000 1250	mV
Reverse Current (V <sub>R</sub> = 75 V) (V <sub>R</sub> = 75 V, T <sub>J</sub> = 150°C) (V <sub>R</sub> = 25 V, T <sub>J</sub> = 150°C)	I <sub>R</sub>	—	1.0 50 30	μA
Capacitance (V <sub>R</sub> = 0, f = 1.0 MHz)	C <sub>D</sub>	—	2.0	pF
Reverse Recovery Time (I <sub>F</sub> = I <sub>R</sub> = 10 mA, R <sub>L</sub> = 50 Ω) (Figure 1)	t <sub>rr</sub>	—	6.0	ns
Stored Charge (I <sub>F</sub> = 10 mA to V <sub>R</sub> = 6.0 V, R <sub>L</sub> = 500 Ω) (Figure 2)	Q <sub>S</sub>	—	45	PC
Forward Recovery Voltage (I <sub>F</sub> = 10 mA, t <sub>r</sub> = 20 ns) (Figure 3)	V <sub>FR</sub>	—	1.75	V

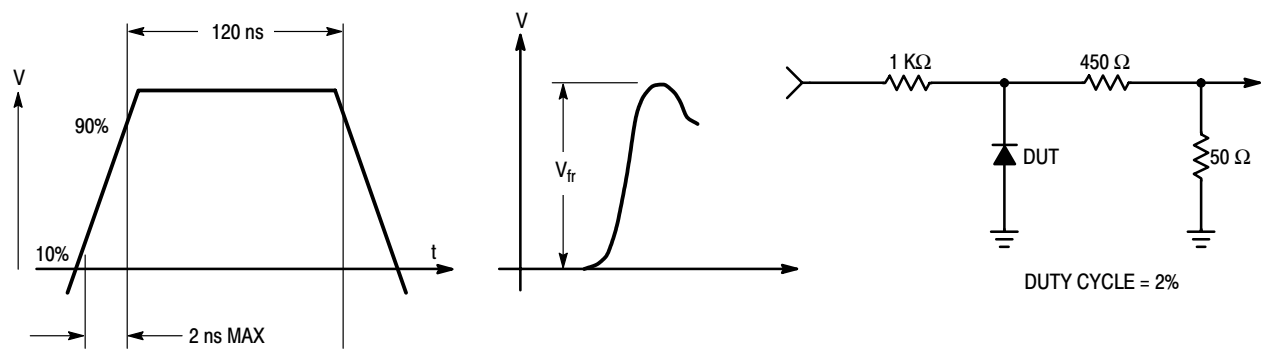
**LBAS16WT1**



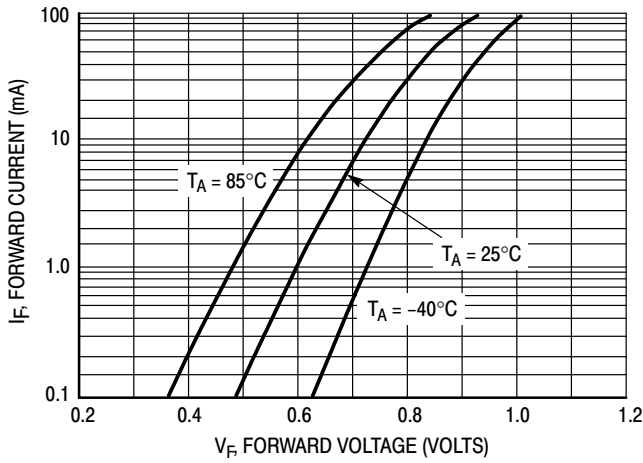
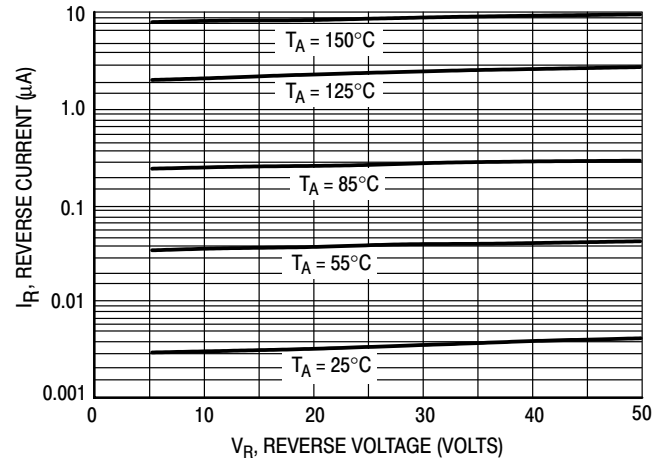
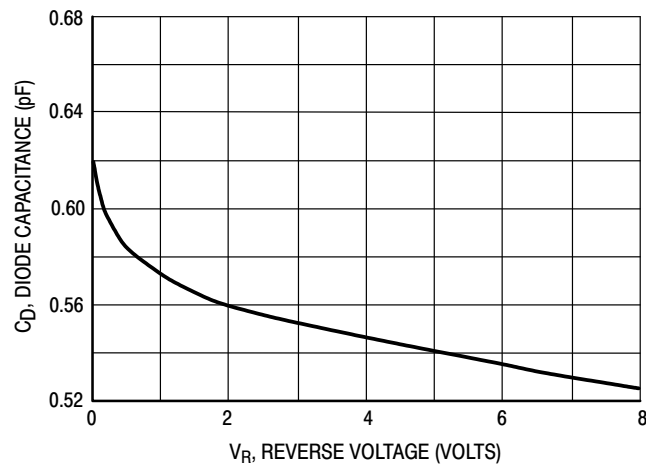
**Figure 1. Reverse Recovery Time Equivalent Test Circuit**



**Figure 2. Recovery Charge Equivalent Test Circuit**



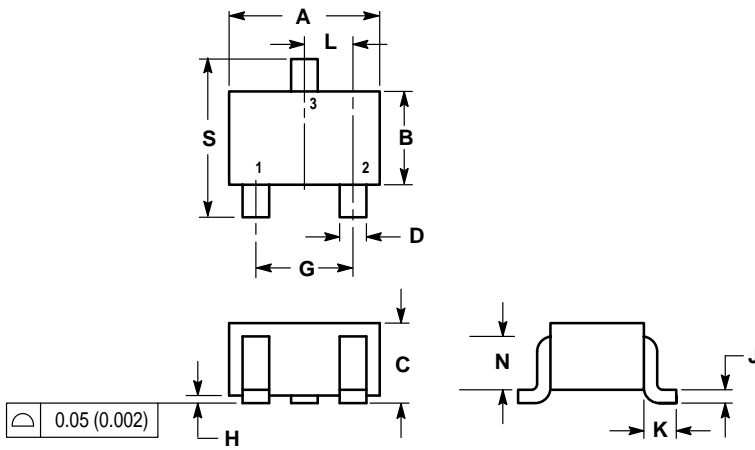
**Figure 3. Forward Recovery Voltage Equivalent Test Circuit**

**LBAS16WT1**

**Figure 4. Forward Voltage**

**Figure 5. Leakage Current**

**Figure 6. Capacitance**

SC-70 / SOT-323

NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.071	0.087	1.80	2.20
B	0.045	0.053	1.15	1.35
C	0.032	0.040	0.80	1.00
D	0.012	0.016	0.30	0.40
G	0.047	0.055	1.20	1.40
H	0.000	0.004	0.00	0.10
J	0.004	0.010	0.10	0.25
K	0.017 REF		0.425 REF	
L	0.026 BSC		0.650 BSC	
N	0.028 REF		0.700 REF	
S	0.079	0.095	2.00	2.40

- PIN 1. ANODE  
 2. NO CONNECTION  
 3. CATHODE

