



DESCRIPTION

The BAS16TW is available in SC-88 Package.

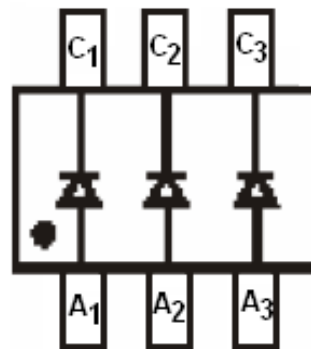
FEATURES

- Fast Switching Speed
- Ultra-Small Surface Mount Package
- For General Purpose Switching Applications
- High Conductance
- Also Available in Lead Free Version
- RoHS Compliant
- Available in SC-88 Package

ORDERING INFORMATION

Package Type	Part Number
SC-88	BAS16TW
Note	3,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION





ABSOLUTE MAXIMUM RATINGS

T_A = 25°C unless otherwise specified

V _{RM} , Non-Repetitive Peak Reverse Voltage	100V
V _{RRM} , Peak Repetitive Reverse Voltage	75V
V _{RWM} , Working Peak Reverse Voltage	75V
V _R , DC Blocking Voltage	75V
V _{R(RMS)} , RMS Reverse Voltage	53V
I _{FM} , Forward Continuous Current	300mA
I _O , Average Rectified Output Current	150mA
I _{FSM} , Non-Repetitive Peak Forward Surge Current	
@ t = 1.0μs	2.0A
@ t = 1.0s	1.0A
P _D , Power Dissipation	200mW
R _{θJA} , Thermal Resistance Junction to Ambient Air ^{NOTE1}	625°C/W
T _J , T _{stg} , Operating and Storage Temperature Range	-65°C to +150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



ELECTRICAL CHARACTERISTICS

T_A = 25°C unless otherwise specified

Parameter	Symbol	Conditions	Min	Max	Unit
Reverse Breakdown Voltage ^{NOTE}	V _{(BR)R}	I _R = 1μA	75	-	V
Forward Voltage ^{NOTE}	V _F	I _F = 1.0mA	-	0.715	V
		I _F = 10 mA	-	0.855	
		I _F = 50mA	-	1.0	
		I _F = 150mA	-	1.25	
Reverse Current ^{NOTE}	I _R	V _R = 75V	-	1.0	μA
		V _R = 75V, T _J = 150°C	-	50	
		V _R = 25V, T _J = 150°C	-	30	
		V _R = 20V	-	25	nA
Total Capacitance	C _T	V _R = 0, f = 1.0MHz	-	2.0	pF
Reverse Recovery Time	t _{rr}	I _F = I _R = 10mA, I _{rr} = 0.1 x I _R , R _L = 100Ω	-	4.0	ns

NOTE: Short duration test pulse used to minimize self-heating effect.



TYPICAL CHARACTERISTICS

Figure 1. Forward Voltage

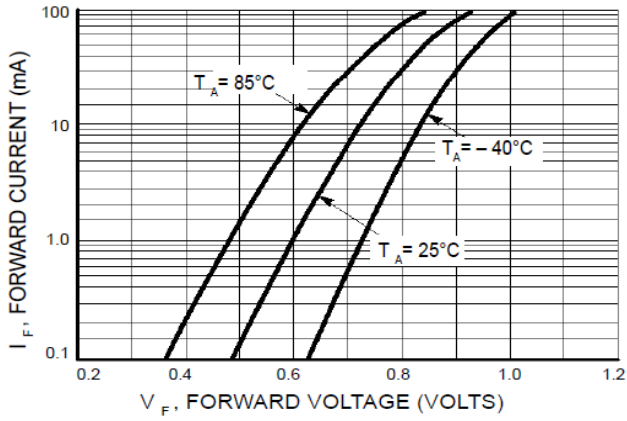


Figure 2. Leakage Current

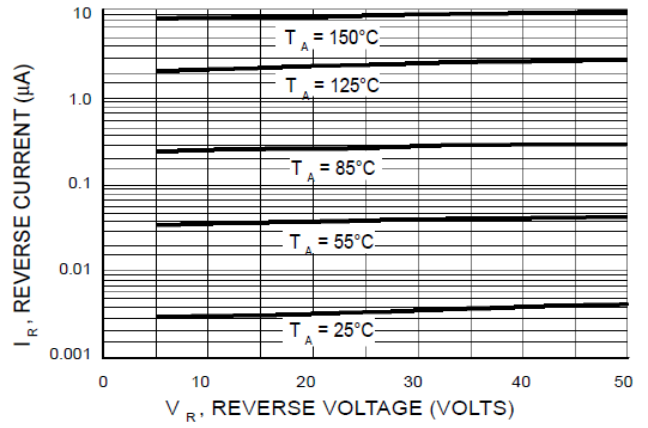
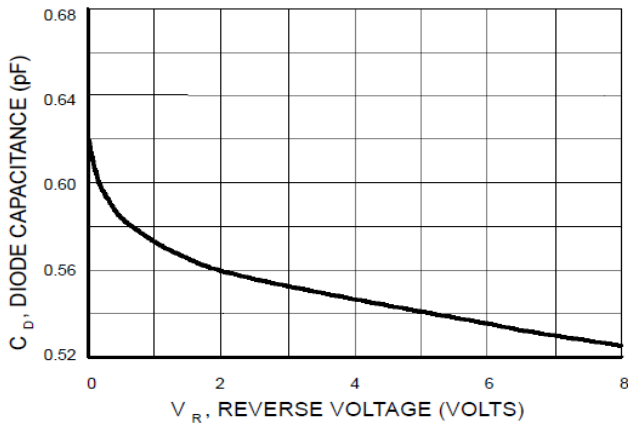


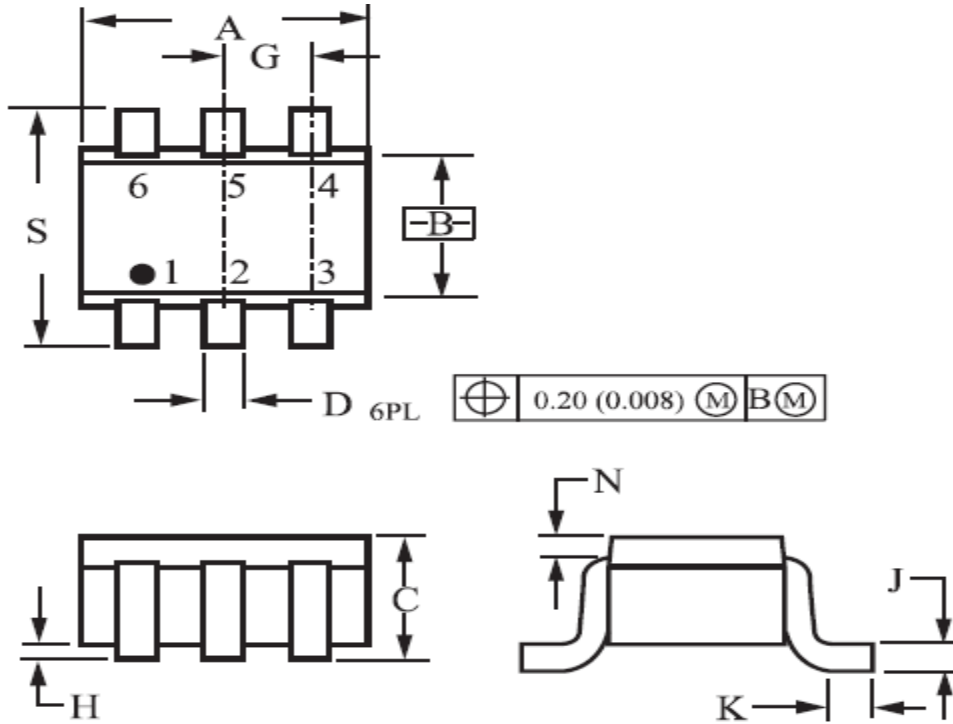
Figure 3. Capacitance





PACKAGE INFORMATION

Dimension in SC-88 Package (Unit: mm)



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	0.031	0.043	0.80	1.10
D	0.004	0.012	0.10	0.30
G	0.026 BSC		0.65 BSC	
H	-	0.004	-	0.10
J	0.004	0.010	0.10	0.25
K	0.004	0.012	0.10	0.30
N	0.008 REF		0.20 REF	
S	0.079	0.087	2.00	2.20



IMPORTANT NOTICE

AiT Components (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Components' integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or severe property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Components assumes to no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.