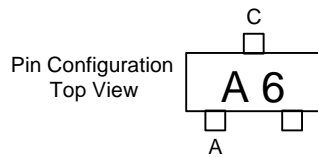


# BAS16

## 300mW 75Volt Switching Diode

### Features

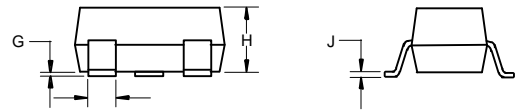
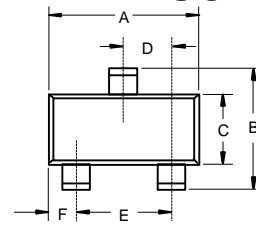
- Low Current Leakage
- Low Cost
- Small Outline Surface Mount Package



### Maximum Ratings

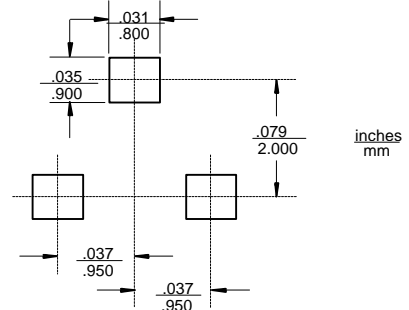
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 556 °C/W Junction To Ambient

### SOT-23



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.110	.120	2.80	3.04	
B	.083	.098	2.10	2.64	
C	.047	.055	1.20	1.40	
D	.035	.041	.89	1.03	
E	.070	.081	1.78	2.05	
F	.018	.024	.45	.60	
G	.0005	.0039	.013	.100	
H	.035	.044	.89	1.12	
J	.003	.007	.085	.180	
K	.015	.020	.37	.51	

### Suggested Solder Pad Layout



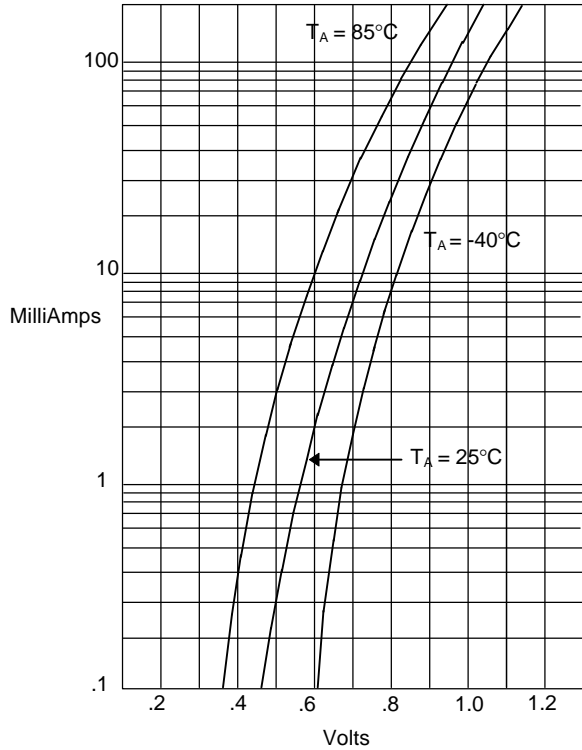
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Reverse Voltage	$V_R$	75V	
Peak Reverse Voltage	$V_{RM}$	85V	
Peak Forward Current	$I_F$	200mA	
Power Dissipation	$P_{TOT}$	300mW	
Peak Forward Surge Current	$I_{FSM}$	500mA	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	855mV	$I_{FM} = 10mA$ ; $T_J = 25^\circ C^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1 $\mu A$ 50 $\mu A$	$V_R = 75Volts$ $T_J = 25^\circ C$ $T_J = 150^\circ C$
Typical Junction Capacitance	$C_J$	2pF	Measured at 1.0MHz, $V_R = 0V$
Reverse Recovery Time	$T_{rr}$	6nS	$I_F = 10mA$ $V_R = 0V$ $R_L = 500\Omega$

\*Pulse test: Pulse width 300  $\mu sec$ , Duty cycle 2%

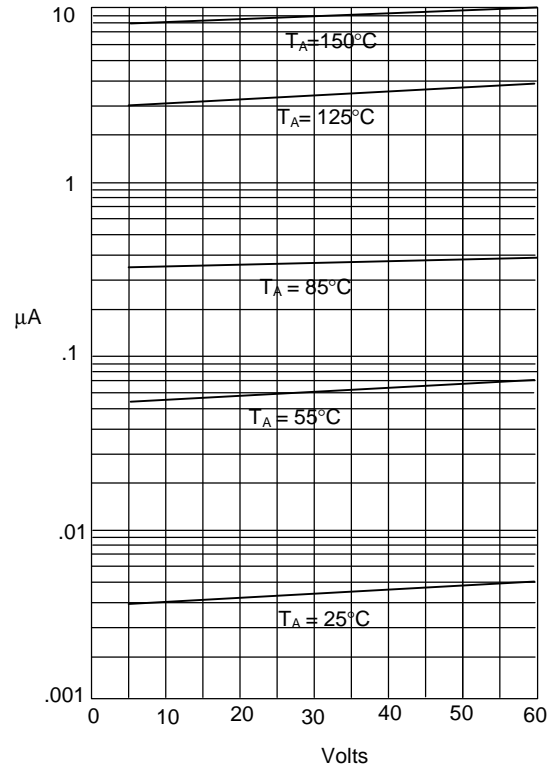
# BAS16

Figure 1  
Typical Forward Characteristics



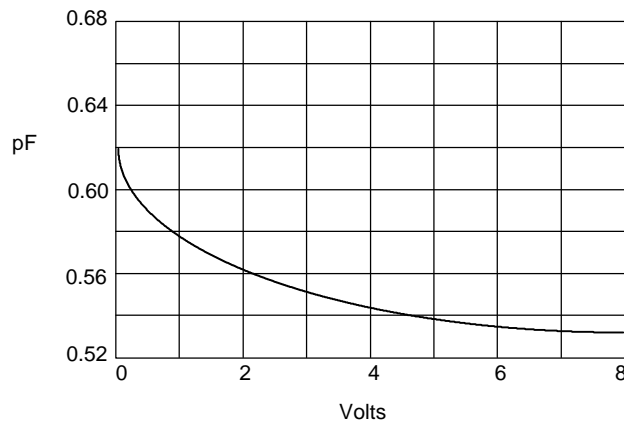
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



Instantaneous Reverse Current - MicroAmperes *versus*  
Reverse Voltage - Volts

Figure 3  
Diode Capacitance



Diode Capacitance - pF *versus*  
Reverse Voltage - Volts