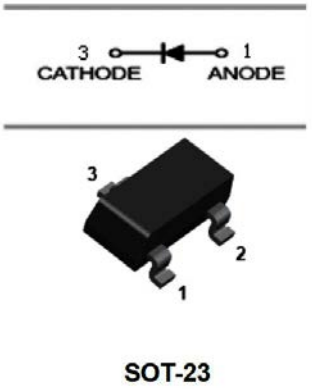
Surface Mount
Switching Diode



Features:

- Fast Switching Speed
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications
- High Conductance



SOT-23

Applications:

High speed switching application

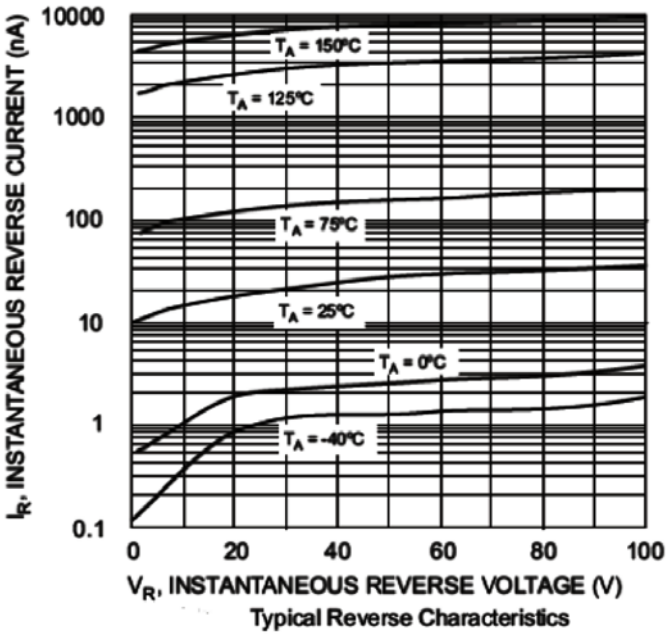
Max. Rating @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RM}	85	V
DC reverse Voltage	V_R	75	V
Forward continuous current	I_F	250	mA
Non-Repetitive peak forward surge current @t=1.0μs	I_{FSM}	4.5	A
Power dissipation T_S = 54°C	P_D	370	mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	375	°C/W
Operating junction temperature range	T_J	150	°C
Storage temperature range	T_{STG}	-65 to +150	°C

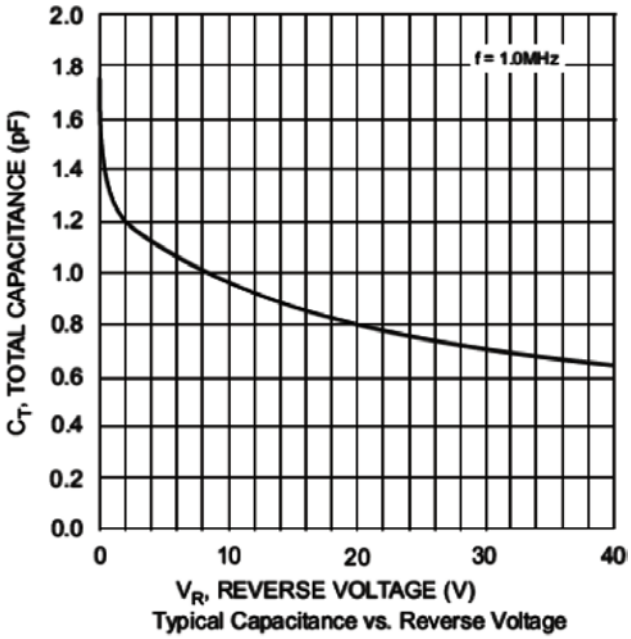
Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min.	Typ.	Max.	Unit	
Reverse breakdown voltage	$V_{(BR)R}$	75	-	-	V	I_R=100μA
Forward voltage	V_F	-	-	0.715 0.855 1 1.25	V	I_F = 1mA I_F = 10mA I_F = 50mA I_F = 150mA
Reverse leakage current	I_R	-	-	1	μA	V_R = 70V
Junction capacitance	C_j	-	-	2	pF	V_R =0V, f = 1MHz
Reverse recovery time	trr	-	-	6	ns	I_F = I_R = 10mA, R_L=100Ω

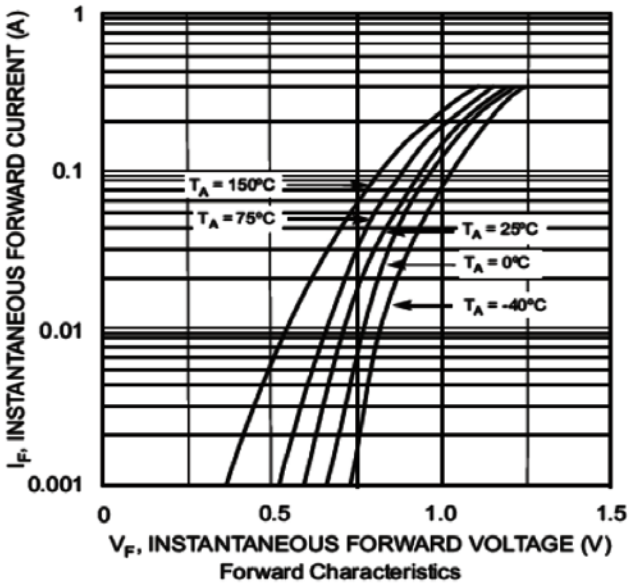
Typical Characteristics @ TA=25°C unless otherwise specified



Typical Reverse Characteristics



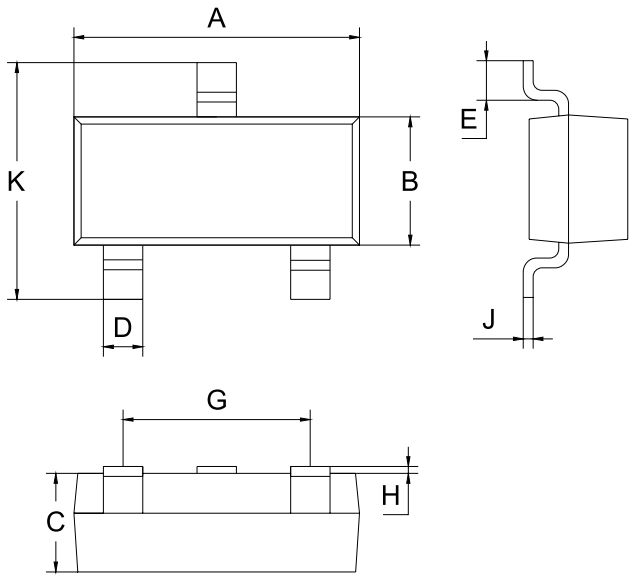
Typical Capacitance vs. Reverse Voltage



Forward Characteristics

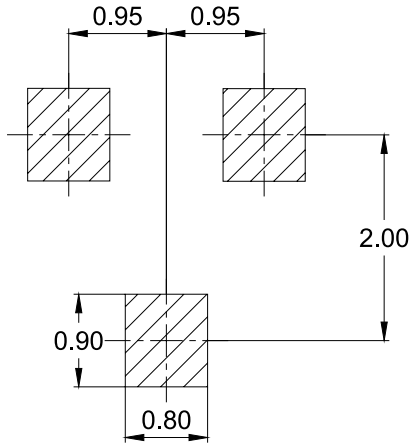
Surface Mount
Switching Diode

Plastic surface mounted package



SOT-23		
Dim	Min	Max
A	2.7	3.1
B	1.1	1.5
C	1 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.8	2
H	0.02	0.1
J	0.1 Typical	
K	2.2	2.6
All Dimensions in mm		

Soldering Footprint



Unit : mm

Package Information

Device	Package	Shipping
BAS16-7-F	SOT-23	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Surface Mount Switching Diode	BAS16-7-F

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