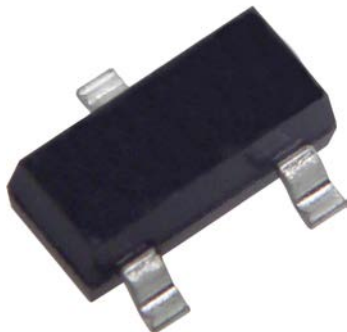


Surface Mount Schottky Barrier Diode



Features:

- Low Turn-On Voltage
- Fast Switching
- PN Junction Guard Ring for Transient And BAS70 BAS70-04 ESD Protection
- Ultra-Small Surface Mount Package
- Also Available in Lead Free Version

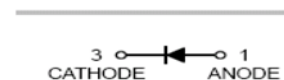
Applications:

- High speed switching applications.
- Circuit protecting : SOT-23
- Voltage clamping

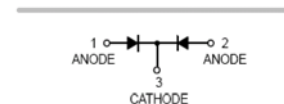
Maximum Ratings:

T_A = 25°C unless otherwise specified.

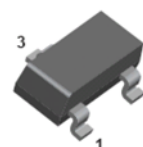
Characteristic	Symbol	Limits	Unit
RMS reverse voltage	V _{R(RMS)}	49	V
Repetitive peak reverse voltage Working peak reverse voltage Diode reverse voltage	V _{RRM} V _{RWM} V _R	70	V
Forward continuous current	I _F	70	mA
Non-Repetitive peak forward surge current at t _p <1s	I _{FSM}	100	mA
Power dissipation	P _D	200	mW
Thermal resistance, junction to ambient air	R _{θJA}	625	°C/W
Junction and storage temperature range	T _j , T _{stg}	-65 to +150	°C



BAS70



BAS70-05



SOT-23

Surface Mount Schottky Barrier Diode



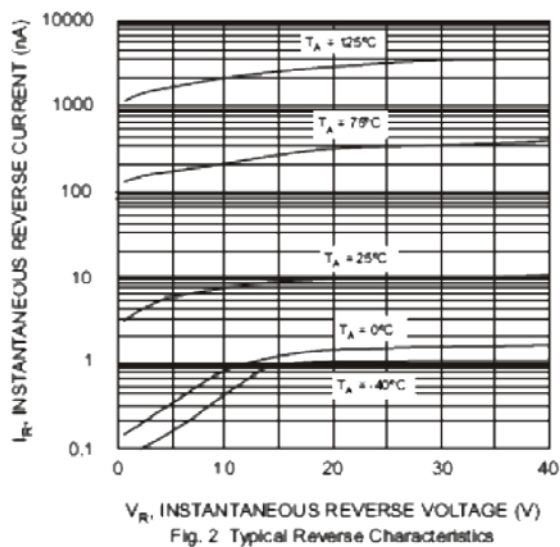
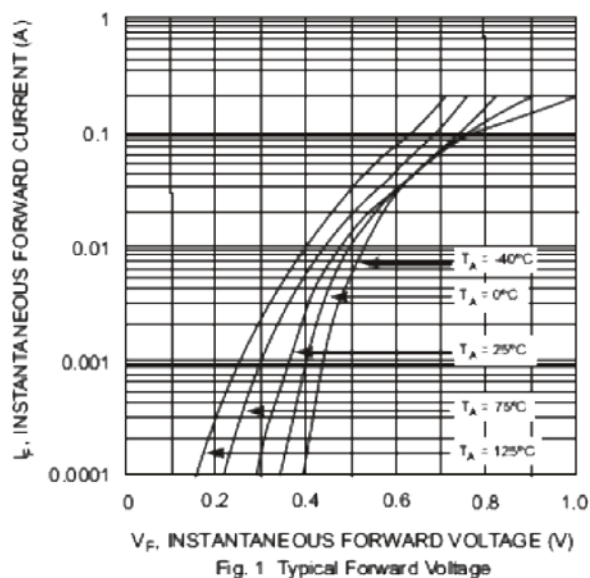
Electrical Characteristics:

$T_A = 25^\circ\text{C}$ unless otherwise specified.

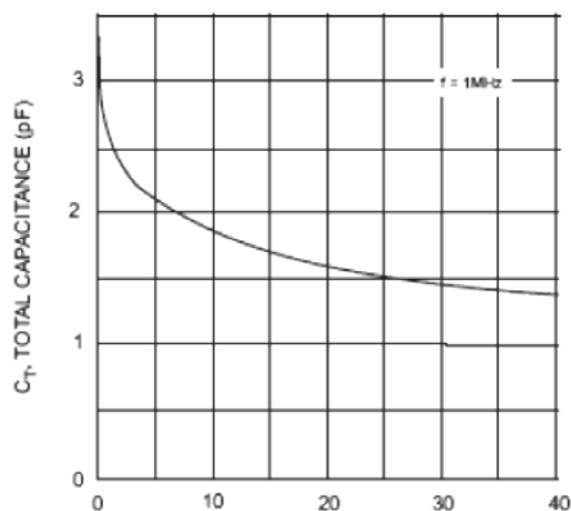
Characteristic	Symbol	Test conditions	Min.	Max.	Unit
Reverse breakdown voltage	$V_{(BR)R}$	$I_{(BR)} = 10\mu\text{A}$	70	-	V
Reverse leakage current	I_R	$t_P < 300\mu\text{s}$, $V_R = 50\text{V}$	-	100	nA
Forward voltage	V_F	$t_P < 300\mu\text{s}$, $I_F = 1\text{mA}$ $t_P < 300\mu\text{s}$, $I_F = 15\text{mA}$	-	410 1,000	mV
Junction capacitance	C_j	$V_R = 0\text{V}$, $f = 1\text{MHz}$	-	2	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10\text{mA}$ to $I_R = 1\text{mA}$, $R_L = 100\Omega$	-	5	nS

Typical Characteristics:

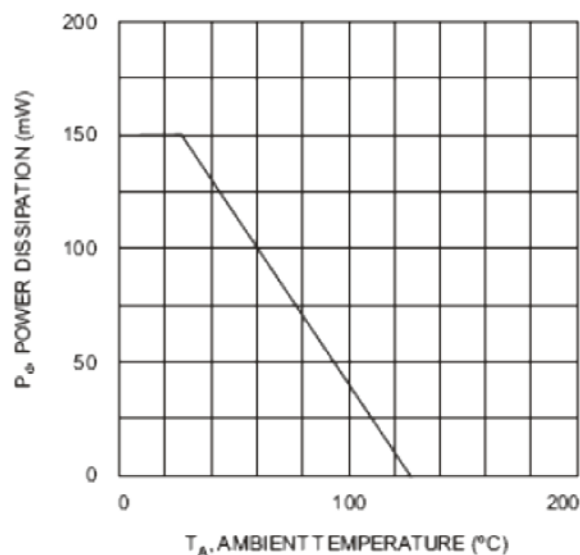
$T_A = 25^\circ\text{C}$ unless otherwise specified.



Surface Mount Schottky Barrier Diode



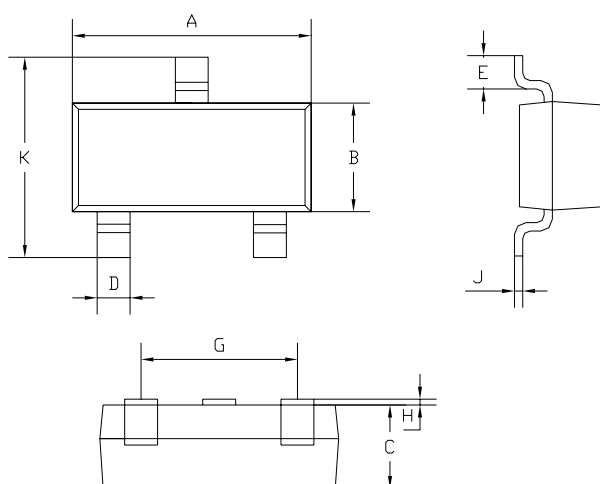
V_R , REVERSE VOLTAGE (V)
Fig. 3 Typical Capacitance



T_A , AMBIENT TEMPERATURE (°C)
Fig. 4 Power Derating Curve, Total Package

Package Outline:

Plastic surface mounted package



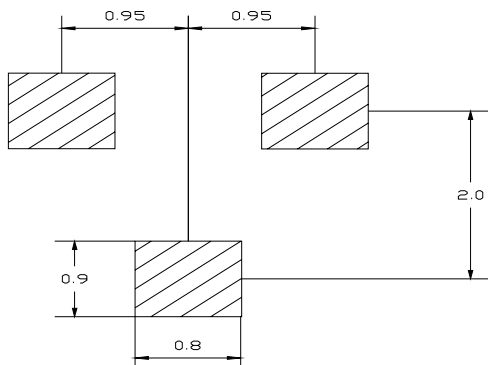
SOT-23		
Dim.	Min.	Max.
A	2.85	2.95
B	1.25	1.35
C	1 Typ.	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typ.	
K	2.35	2.45

Dimensions : Millimetres

Surface Mount Schottky Barrier Diode



Soldering Footprint:



Dimensions : Millimetres

Package Information:

Device	Package	Shipping
BAS70-05-7-F BAS70-7-F	SOT-23	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Surface Mount Schottky Barrier Diode	BAS70-05-7-F
	BAS70-7-F

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