

# Surface Mount Schottky Barrier Diode

**multicomp** PRO



## Applications:

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

## Features:

- SOT-23 Package for surface mount application
- Protects from line to  $V_{CC}$  and line to ground
- Low forward voltage and reverse recovery characteristics
- Epoxy meets UL 94 V-0 flammability rating
- Moisture sensitivity Level 1
- Halogen free available upon request by adding suffix “-HF”
- Mounting Position : Any
- Weight : 0.008 grams (approx.)

## Maximum Ratings:

$T_a = 25^\circ\text{C}$  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	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Junction and Storage Temperature Range	$T_j, T_{stg}$	-65 to +150	$^\circ\text{C}$

## Electrical Characteristics:

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

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Device Marking	-	74		-	V
Repetitive Peak Reverse Voltage	$V_{rrm}$	-	70	-	V
Reverse Breakdown Voltage Tested with 10 $\mu\text{A}$ Pulse	$V_{(br)r}$	70	-	-	
Leakage Current Pulse Test $t_p < 300\mu s$ @ For BAS70 $V_r = 50V$	$I_r$	-	10	200	nA
Forward Voltage Pulse Test $t_p < 300\mu s$ at $I_f = 1mA$ at $I_f = 15mA$	$V_f$	410 1000	-	-	mV

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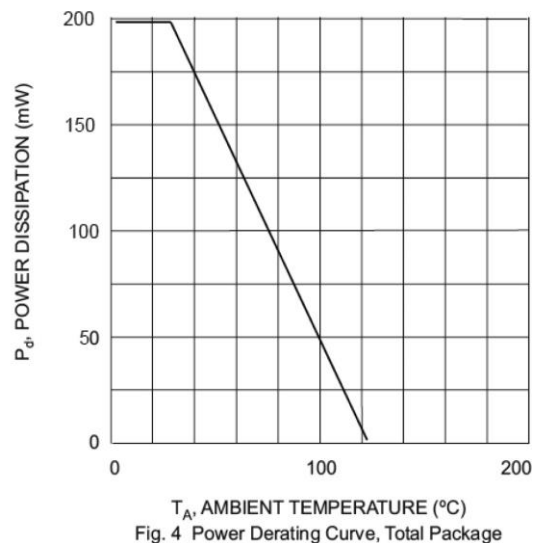
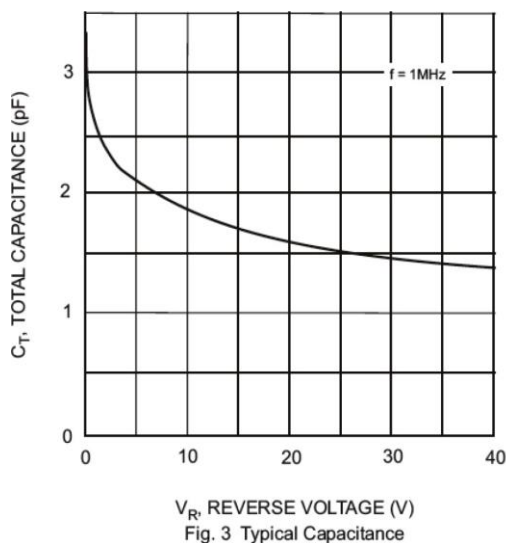
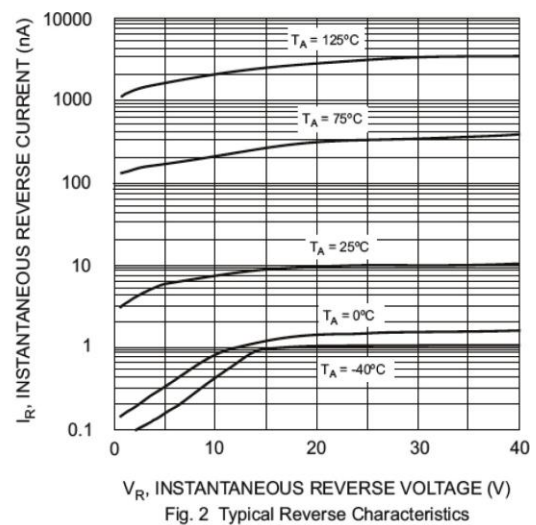
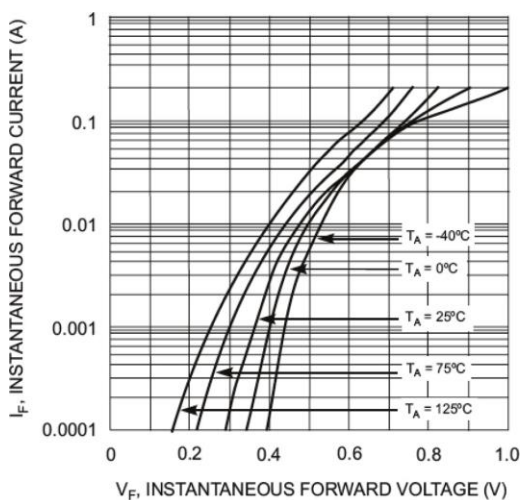
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Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse Recovery Time from $I_r = 10\text{mA}$ through $I_r = 10\text{mA}$ to $I_r = 1\text{mA}$	trr	-	-	5	ns
Thermal Resistance Junction to Ambient Air	$R_{thJA}$	-	-	430	k/W
Capacitance at $V_r = 0\text{V}$ , $F = 1\text{MHz}$	Ctot	-	-	2	pF

## Typical Characteristics:

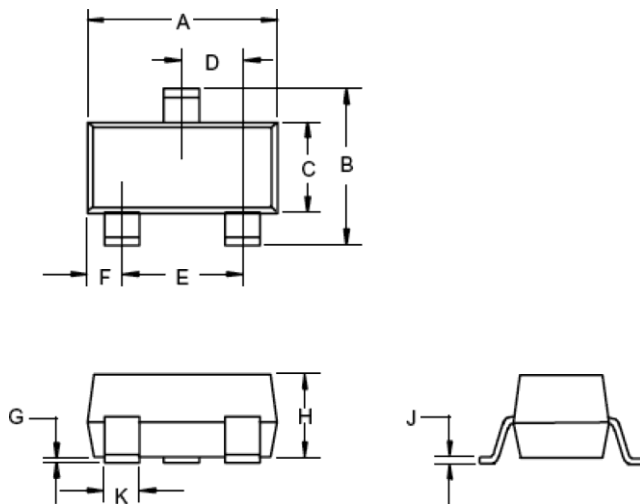
$T_a = 25^\circ\text{C}$  unless otherwise specified.



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## Dimension:



SOT-23		
Dim.	Min.	Max.
A	2.8	3.04
B	2.1	2.64
C	1.2	1.4
D	0.89	1.03
E	1.78	2.05
F	0.45	0.6
G	0.013	0.1
H	0.89	1.12
J	0.085	0.18
K	0.37	0.51

Dimensions : Millimetres

## Part Number Table

Description	Part Number
Surface Mount Schottky Barrier Diode	BAS70-04

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