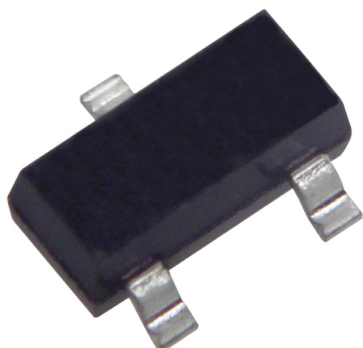


# Surface Mount Barrier Diode

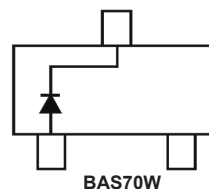


## Features:

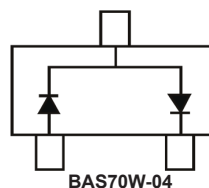
- Low turn-on voltage
- High breakdown voltage
- Guard ring protected
- Low capacitance
- Very small SMD package

## Applications:

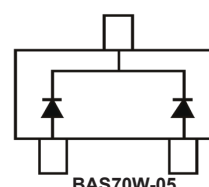
- High speed switching applications



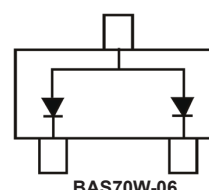
BAS70W



BAS70W-04



BAS70W-05



BAS70W-06

## Maximum Rating @ Ta=25°C (unless otherwise specified):

Characteristic	Symbol	Value	Unit
Peak repetitive reverse voltage Working peak reverse voltage DC reverse voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	70	V
Forward continuous current	$I_F$	70	mA
Non-repetitive peak forward surge current @ $t_p=1\mu s$	$I_{FS}$	100	mA
Power dissipation	$P_D$	200	mW
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{STG}$	-65 to +150	°C

# Surface Mount Barrier Diode

Electrical Characteristics @ Ta=25°C (unless otherwise specified):

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

Typical Characteristics @ Ta=25°C (unless otherwise specified):

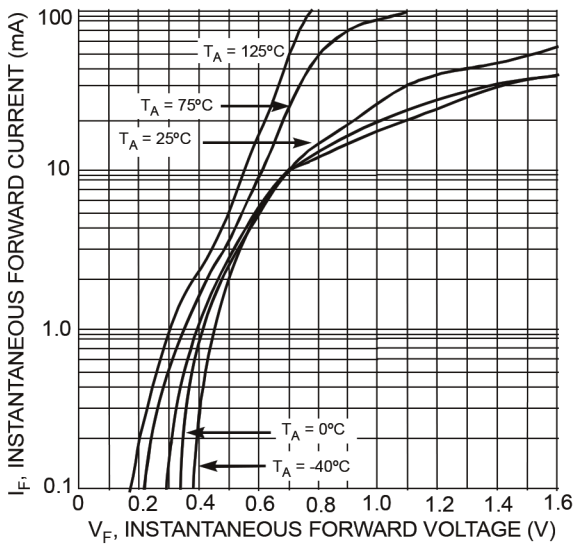


Fig. 1 Typical Forward Characteristics

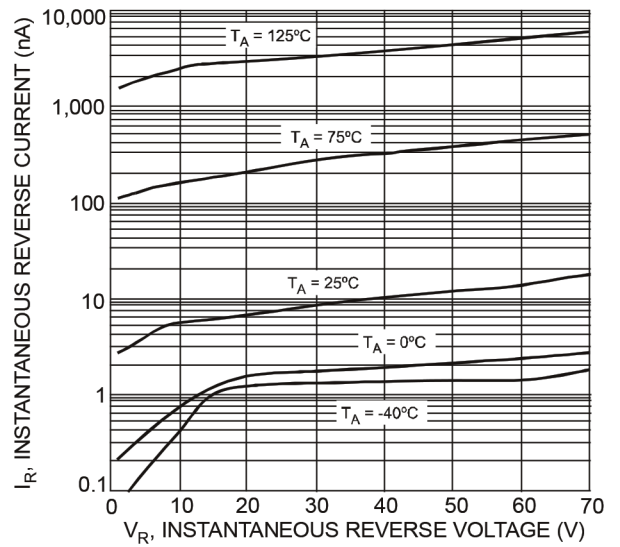


Fig. 2 Typical Reverse Characteristics

# Surface Mount Barrier Diode

Typical Characteristics @ Ta=25°C (unless otherwise specified):

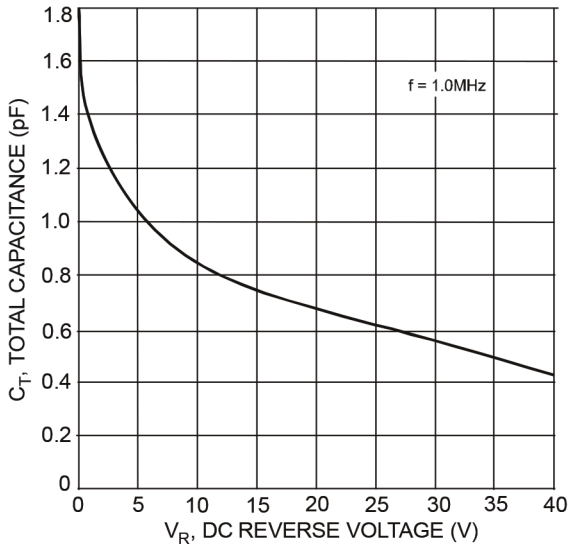


Fig. 3 Total Capacitance vs. Reverse Voltage

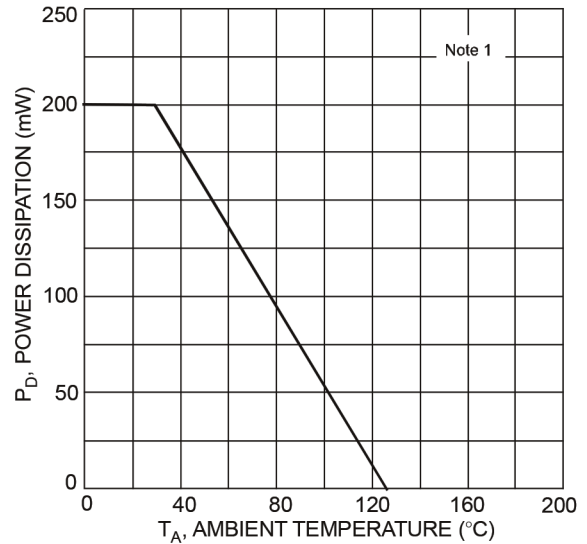
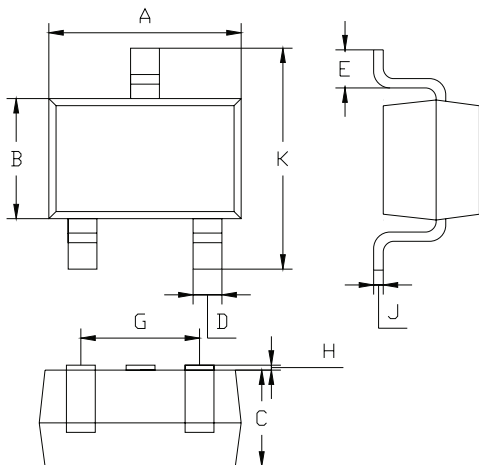


Fig. 4 Power Derating Curve, Total Package

## Package Outline

Plastic Surface Mounted Package

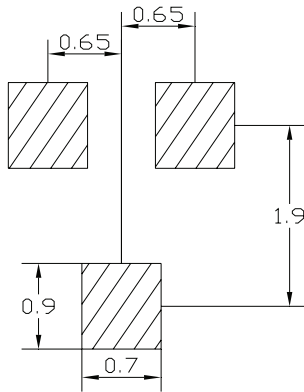


SOT-323		
Dim	Min	Max
A	1.8	2.2
B	1.15	1.35
C	1 Typical	
D	0.15	0.35
E	0.25	0.4
G	1.2	1.4
H	0.02	0.1
J	0.1 Typical	
K	2.1	2.3

Dimensions : Millimetres

# Surface Mount Barrier Diode

## Soldering Footprint



Dimensions : Millimetres

## Part Number Table

Description	Part Number
Diode, Schottky, 70V, SOT323	BAS70W
Diode, Dual Schottky, 70V, SOT323	BAS70W-04
	BAS70W-05
	BAS70W-06

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