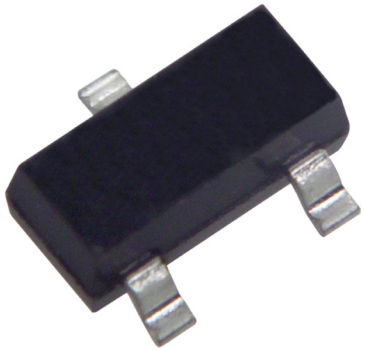
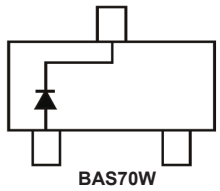
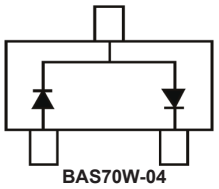
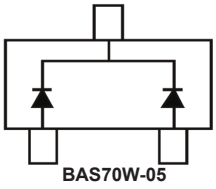
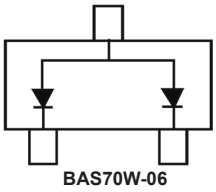
Surface Mount Barrier Diode











Features:

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

Applications:

- High speed switching applications

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=1μs	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

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<300µs, I_F=1mA t_P<300µs, I_F=15mA
Reverse leakage current	I_R	-	100	nA	t_P<300µs, 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=100Ω

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

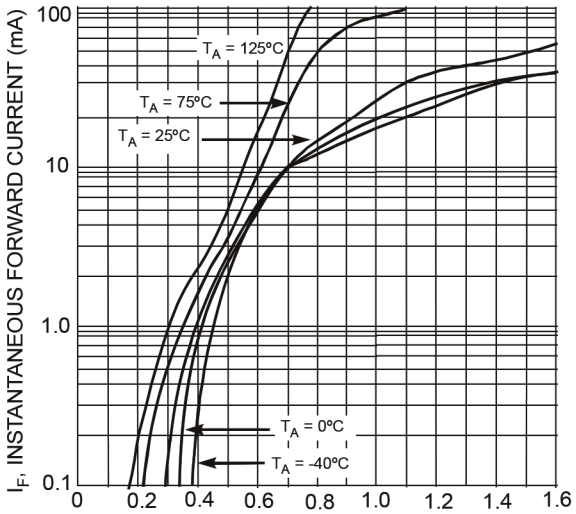


Fig. 1 Typical Forward Characteristics

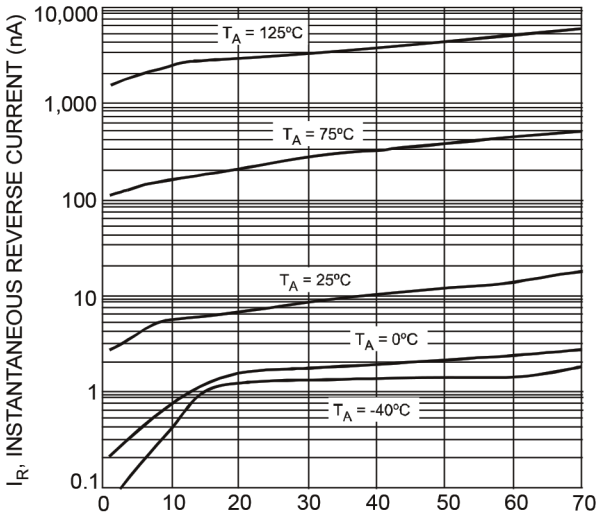


Fig. 2 Typical Reverse Characteristics

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

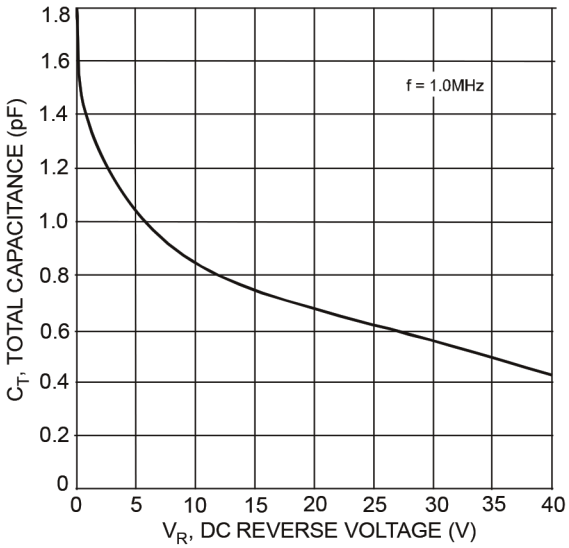


Fig. 3 Total Capacitance vs. Reverse Voltage

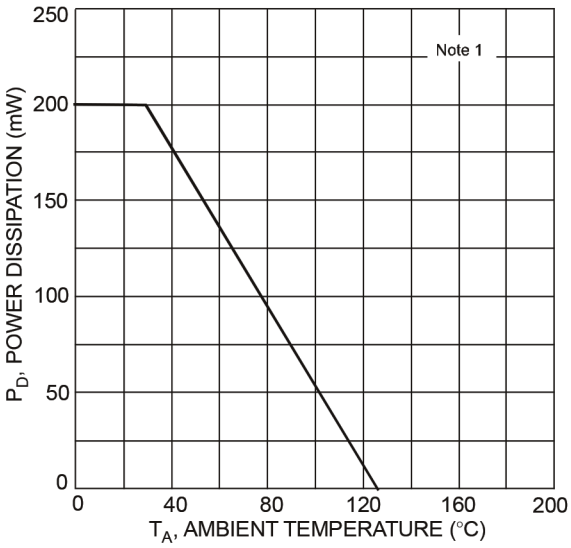
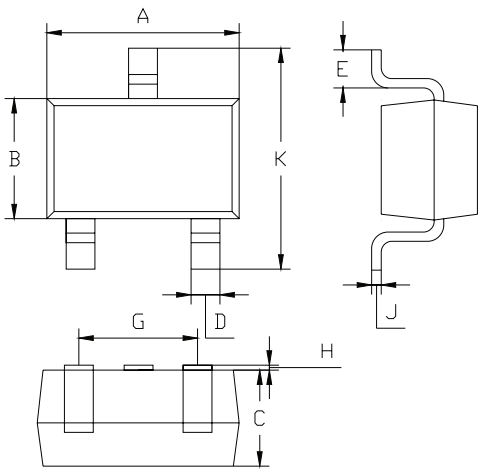


Fig. 4 Power Derating Curve, Total Package

Package Outline

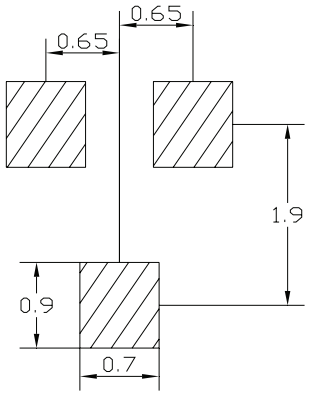
Plastic Surface Mounted Package



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

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