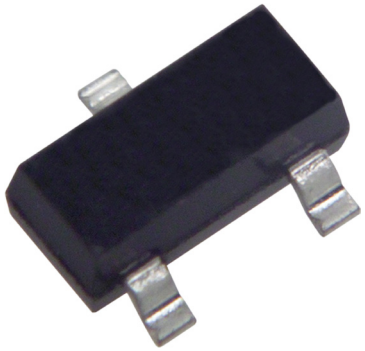
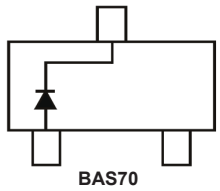
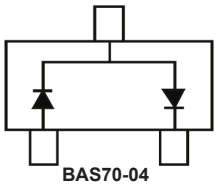
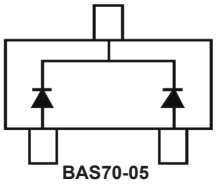
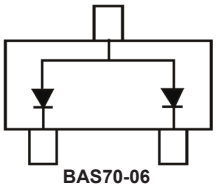
Surface Mount Barrier Diode











Features:

- Low turn-on voltage
- Fast switching
- Ultra-small surface mount package
- PN Junction guard ring for transient and ESD protection
- Ultra small surface mount package

Applications:

- High speed switching applications
- Circuit protecting
- Voltage clamping

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
Thermal resistance, junction to ambient air	R_{thJA}	625	°C/W
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):

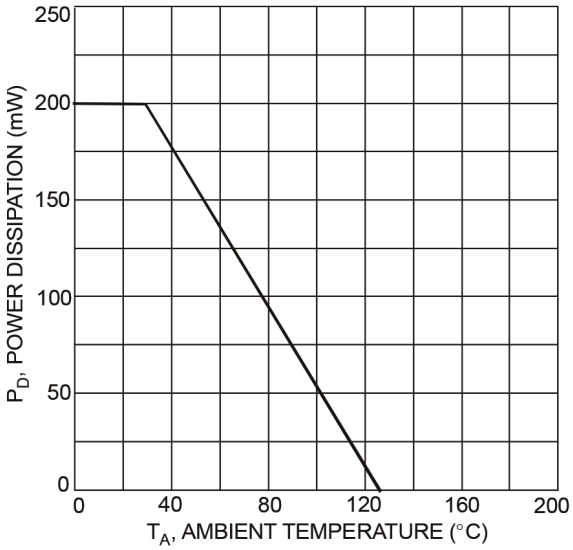


Figure 1 Power Derating Curve, Total Package

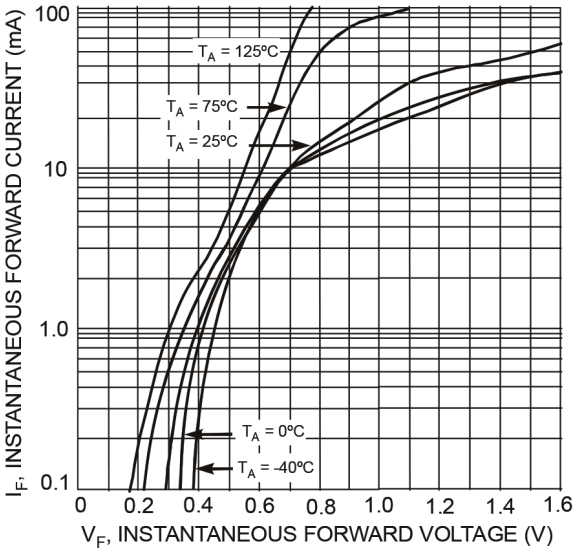


Figure 2 Typical Forward Characteristics

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

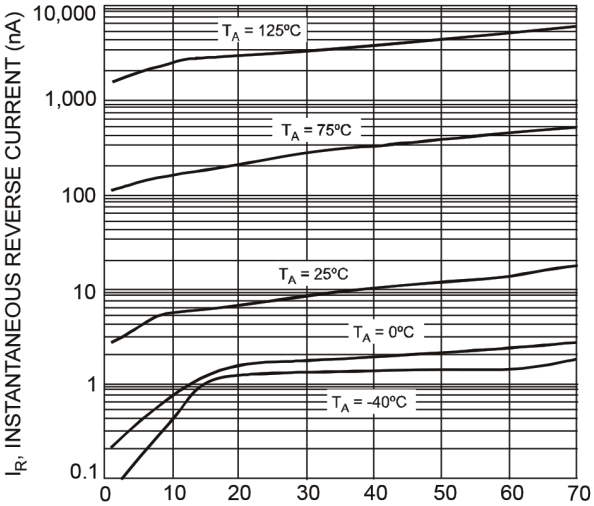


Figure 3 Typical Reverse Characteristics

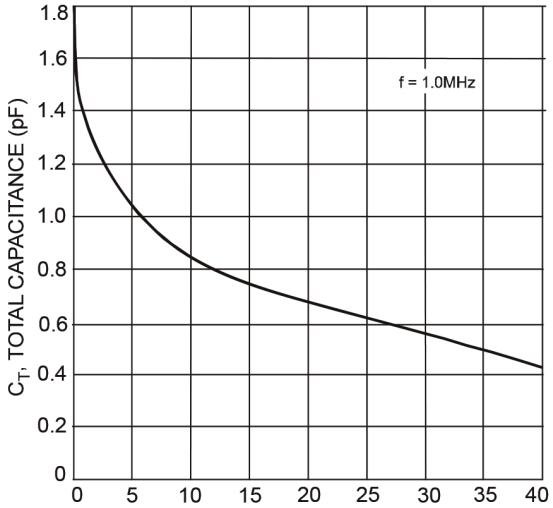
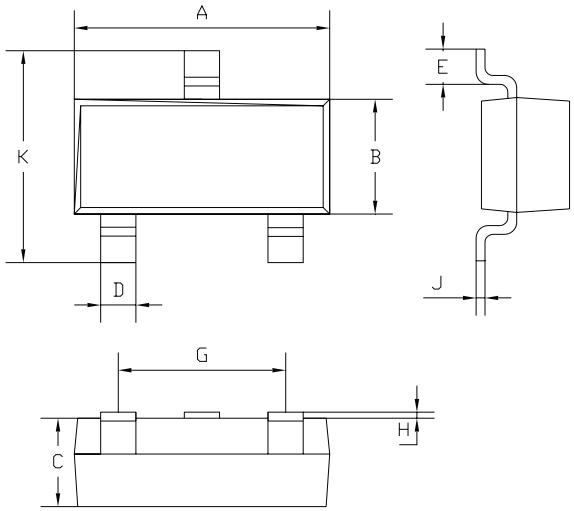


Figure 4 Total Capacitance vs. Reverse Voltage

Package Outline

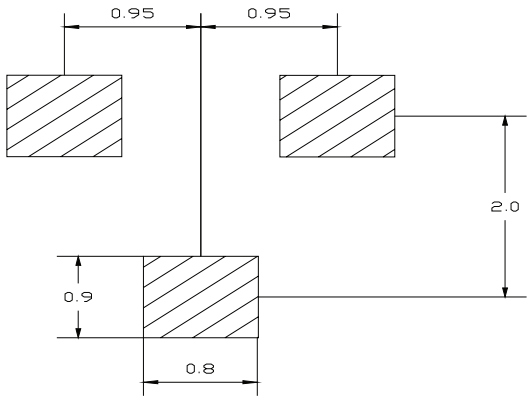
Plastic Surface Mounted Package



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

Dimensions : Millimetres

Soldering Footprint



Dimensions : Millimetres

Part Number Table

Description	Part Number
Diode, Schottky, 70V, SOT23	BAS70
Diode, Dual Schottky, 70V, SOT23	BAS70-04
	BAS70-05
	BAS70-06