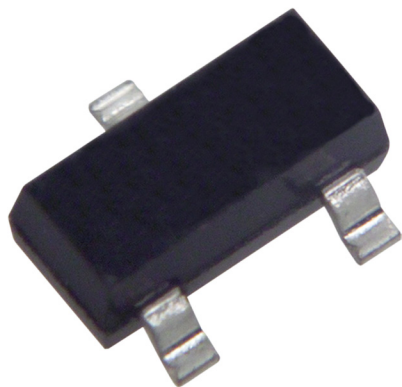


Surface Mount Barrier Diode

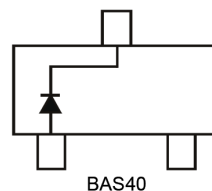


Features:

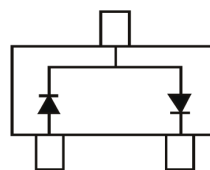
- Low turn-on voltage
- Fast switching
- PN Junction guard ring for transient and ESD protection

Applications:

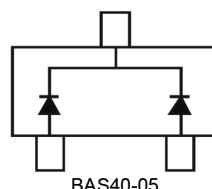
- High speed switching applications
- Circuit protecting
- Voltage clamping



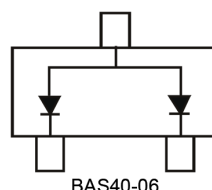
BAS40



BAS40-04



BAS40-05



BAS40-06

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	40	V
Forward continuous current	I_{FS}	200	mA
Power dissipation	P_D	350	mW
Forward surge	I_{FSM}	600	mA
Thermal resistance, junction to ambient air	R_{thJA}	357	°C/W
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.	Typ.	Max.	Unit	Test Condition
Reverse breakdown voltage	$V_{(BR)R}$	40	-	-	V	$I_{RS} = 10A$
Forward voltage	V_F	-	-	380 1,000	mV	$t_p < 300\mu s, I_F = 1mA$ $t_p < 300\mu s, I_F = 40mA$
Reverse leakage current	I_R	-	20	200	nA	$t_p < 300\mu s, V_R = 30V$
Junction capacitance	C_J	-	4	5	pF	$V_R = 0V, f = 1MHz$
Reverse recovery time	t_{rr}	-	-	5	ns	$I_F = I_R = 10mA$ to $I_R = 1mA, R_L = 100\Omega$

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

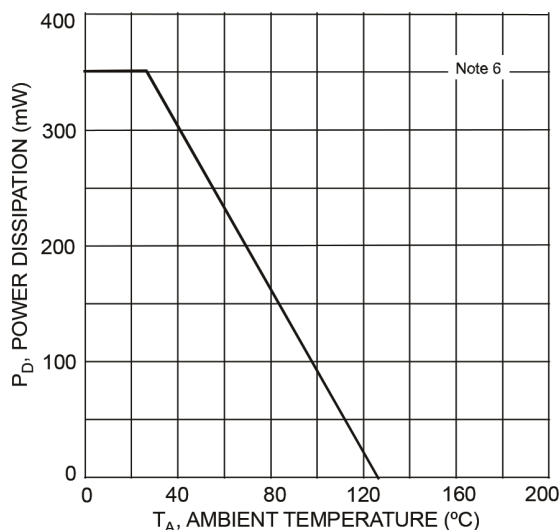


Figure 1 Power Derating Curve, Total Package

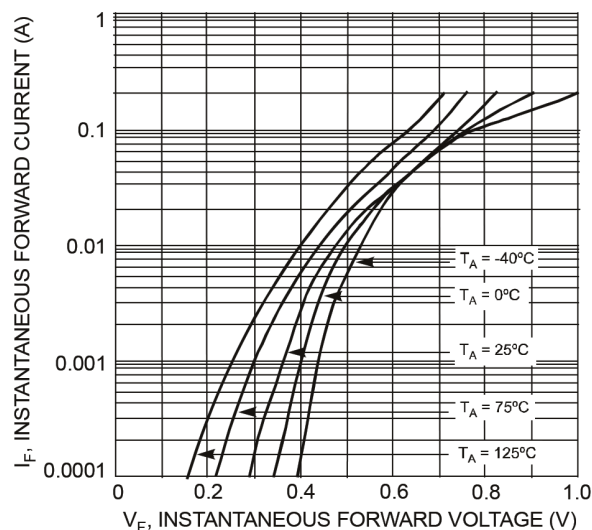


Figure 2 Typical Forward Characteristics

Surface Mount Barrier Diode

Typical Characteristics @ $T_A=25^\circ\text{C}$ (unless otherwise specified):

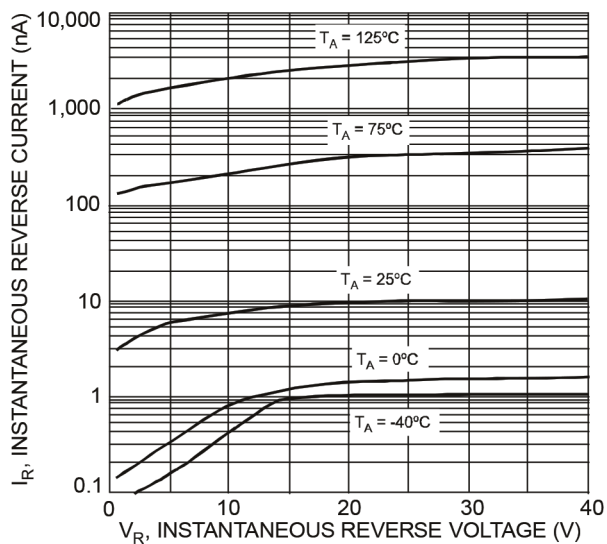


Figure 3 Typical Reverse Characteristics

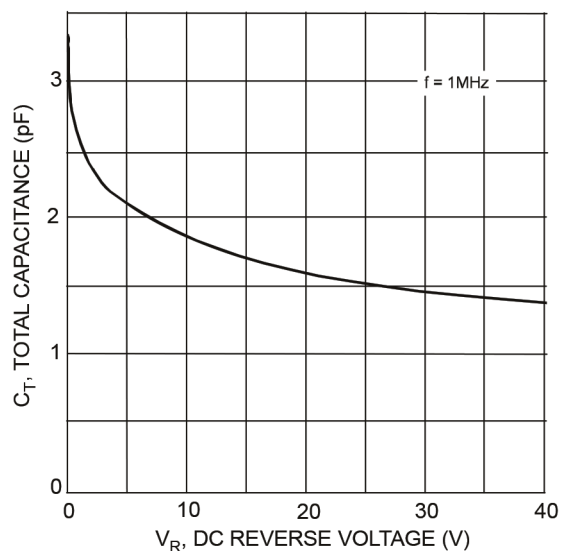
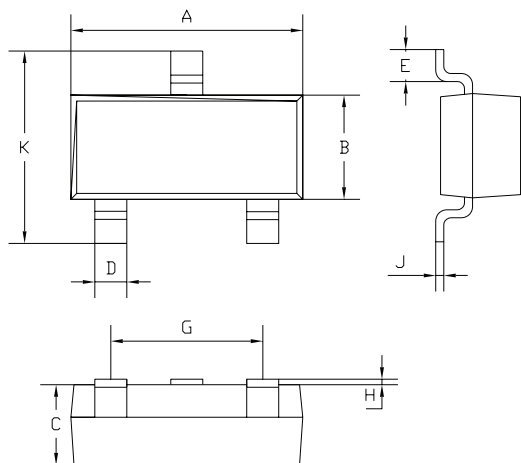


Figure 4 Total Capacitance vs. Reverse Voltage

Package Outline

Plastic Surface Mounted Package

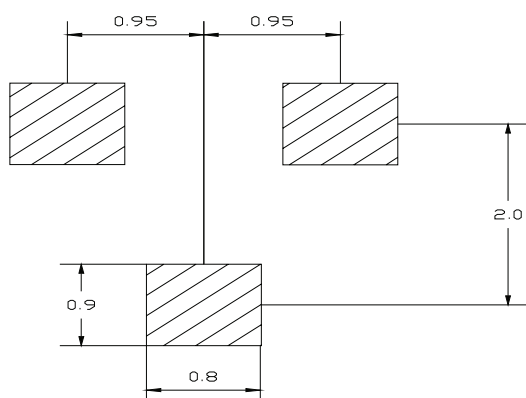


SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1 Typical	
K	2.35	2.45

Dimensions : Millimetres

Surface Mount Barrier Diode

Soldering Footprint



Dimensions : Millimetres

Part Number Table

Description	Part Number
Diode, Schottky, 40V, SOT23	BAS40
Diode, Dual Schottky, 40V, SOT23	BAS40-04
	BAS40-05
	BAS40-06

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