

## II. Schottky Rectifier

Surface mount schottky barrier diode

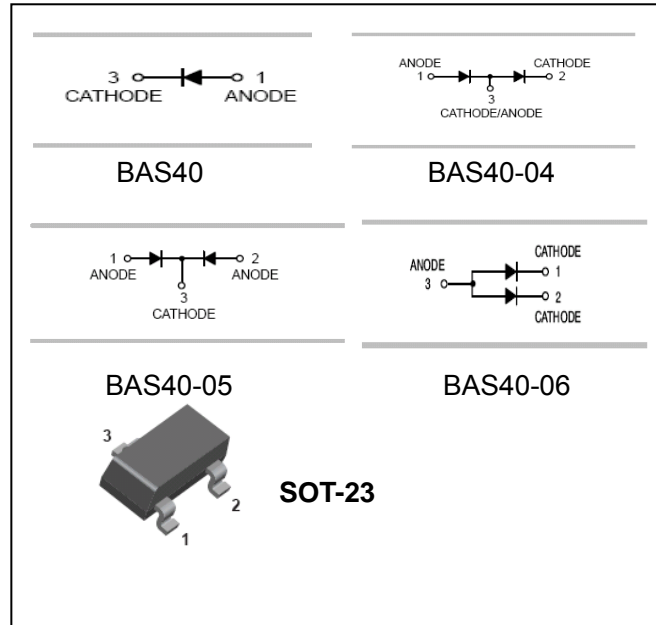
**BAS40/-04/-05/-06**

### 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.



### ORDERING INFORMATION

Type No.	Marking	Package Code
BAS40	43	SOT-23
BAS40-04	44	SOT-23
BAS40-05	45	SOT-23
BAS40-06	46	SOT-23

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Limits	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$		
Working Peak Reverse Voltage	$V_{RWM}$	40	V
DC Reverse Voltage	$V_R$		
Forward Continuous Current	$I_{FM}$	200	mA
Power Dissipation	$P_d$	350	mW
Forward Surge	$I_{FSM}$	600	mA
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	357	°C/W
Operating Junction Temperature Range	$T_j$	-55 to +125	°C
Storage Temperature Range	$T_{STG}$	-65 to +150	°C

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**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Characteristic	Symbol	Min	Typ	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	40	-	-	V	$I_{RS}= 10\mu A$
Forward Voltage	$V_F$	-	-	380 1000	mV	$t_P<300\mu s, I_F=1.0mA$ $t_P<300\mu s, I_F=40mA$
Reverse Leakage Current	$I_R$	-	20	200	nA	$t_P<300\mu s, V_R=30V$
Junction Capacitance	$C_j$	-	4.0	5.0	pF	$V_R=0V, f=1.0MHz$
Reverse Recovery Time	$t_{rr}$	-	-	5.0	ns	$I_F=I_R=10mA$ to $I_R=1.0mA, R_L=100\Omega$

**TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

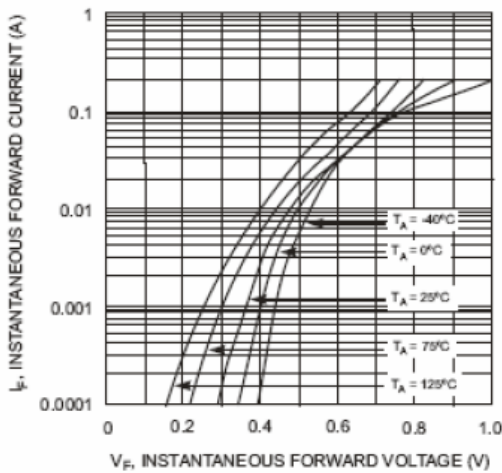


Fig. 1 Typical Forward Voltage

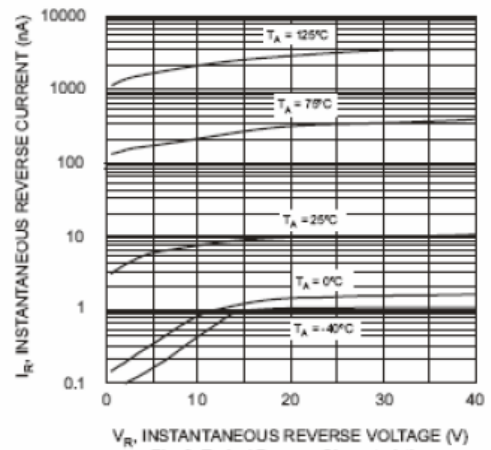


Fig. 2 Typical Reverse Characteristics

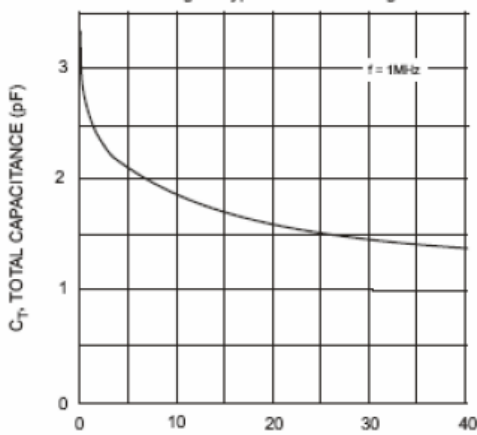


Fig. 3 Typical Capacitance

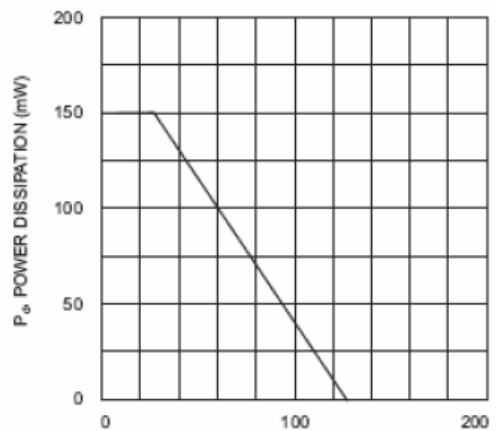


Fig. 4 Power Derating Curve, Total Package

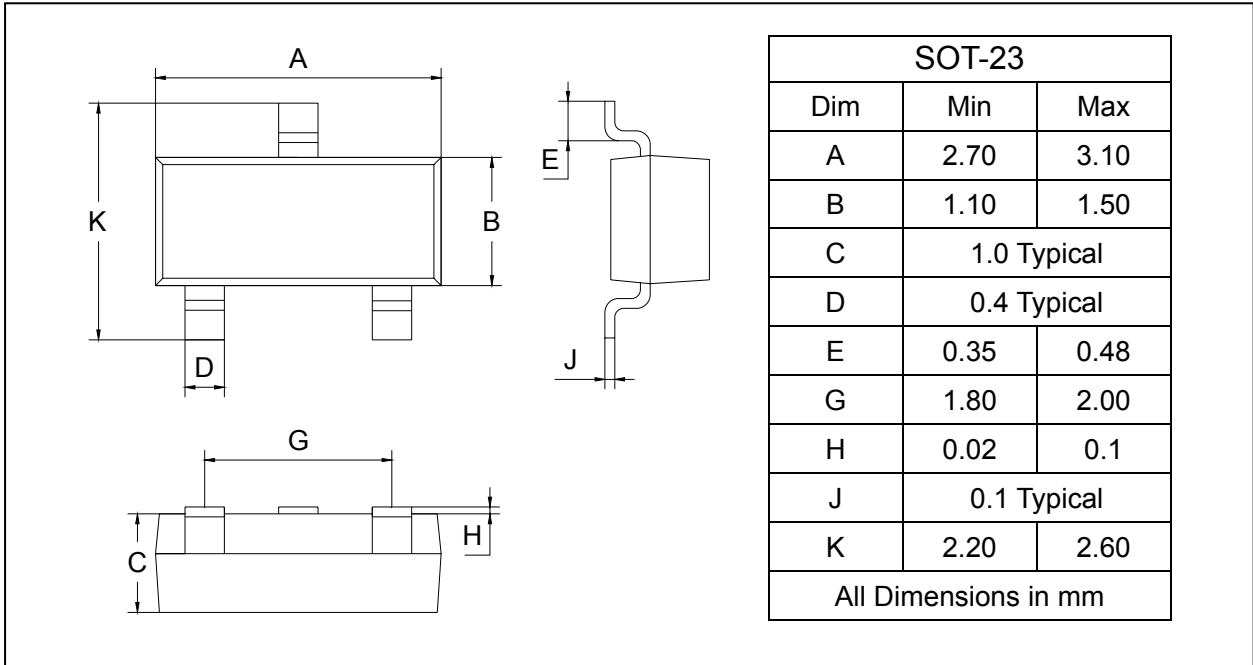
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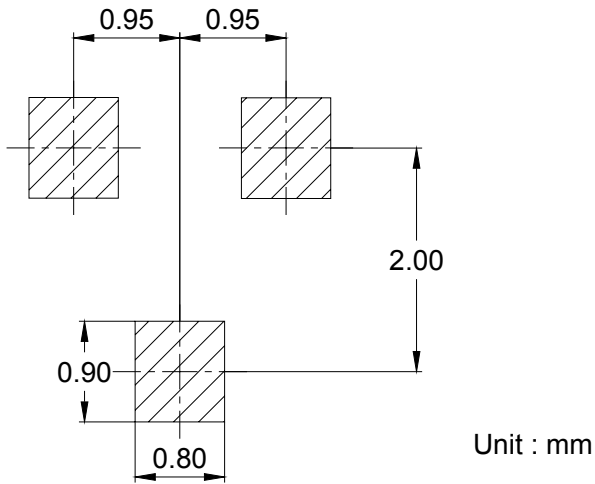
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-23



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
BAS40/-04/-05/-06	SOT-23	3000/Tape&Reel