

Surface mount schottky barrier diode

BAS40M/-04/-05/-06

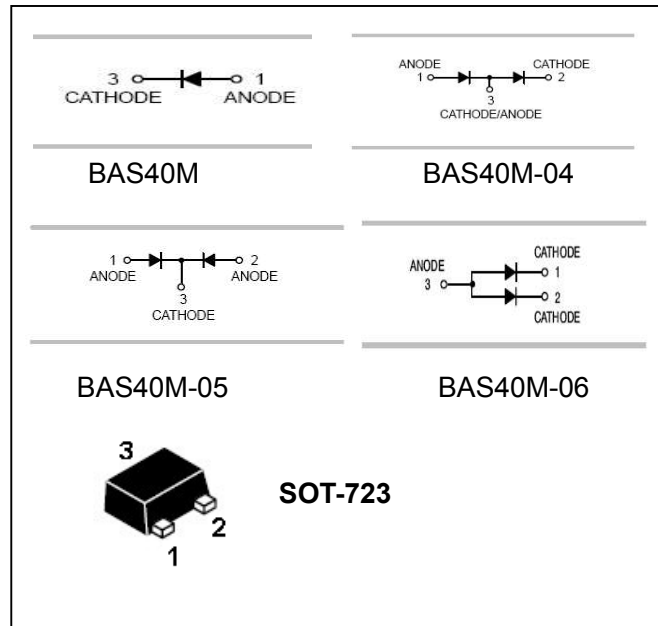
SFEATURES

- 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}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Reverse Voltage	V_R		
Forward Continuous Current	I_{FM}	200	mA
Power Dissipation	P_d	150	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 @ $T_a=25^\circ\text{C}$ unless otherwise specified

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

TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified

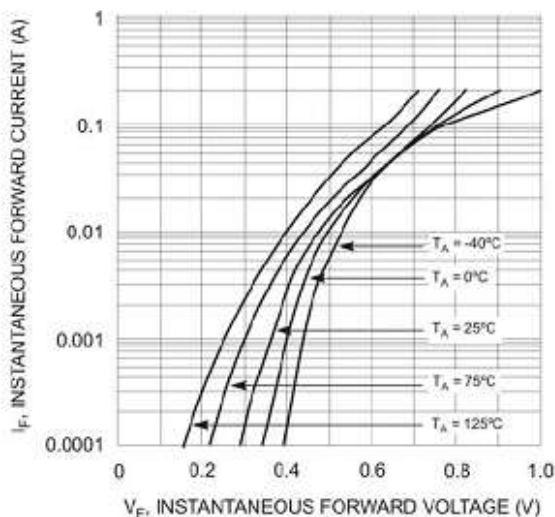


Fig. 1 Typical Forward Voltage

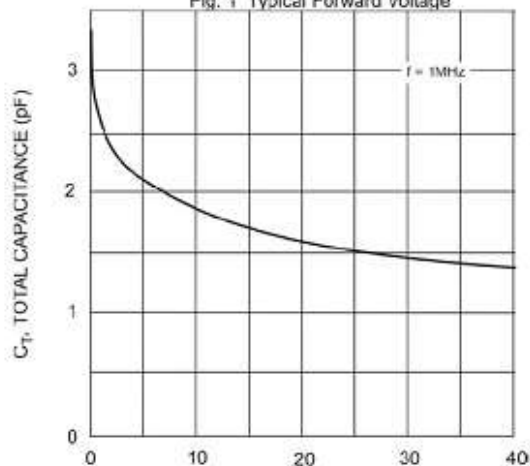


Fig. 3 Typical Capacitance

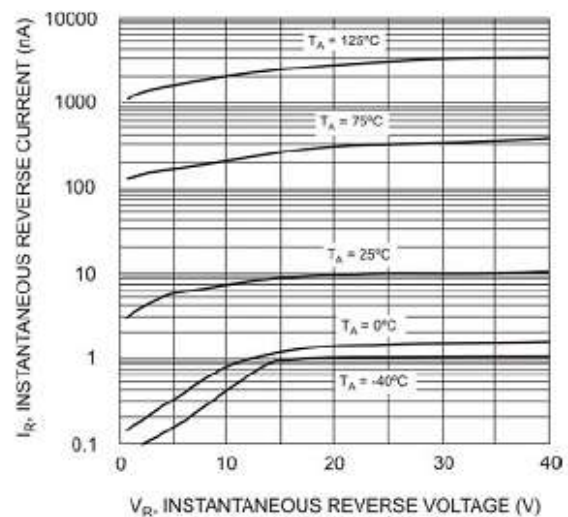


Fig. 2 Typical Reverse Characteristics

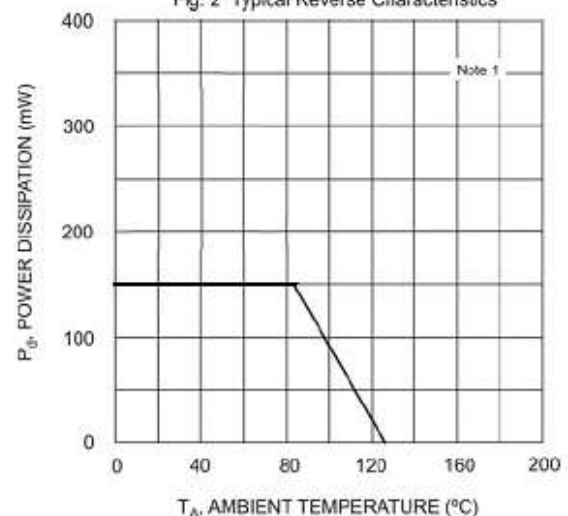


Fig. 4 Power Derating Curve, Total Package

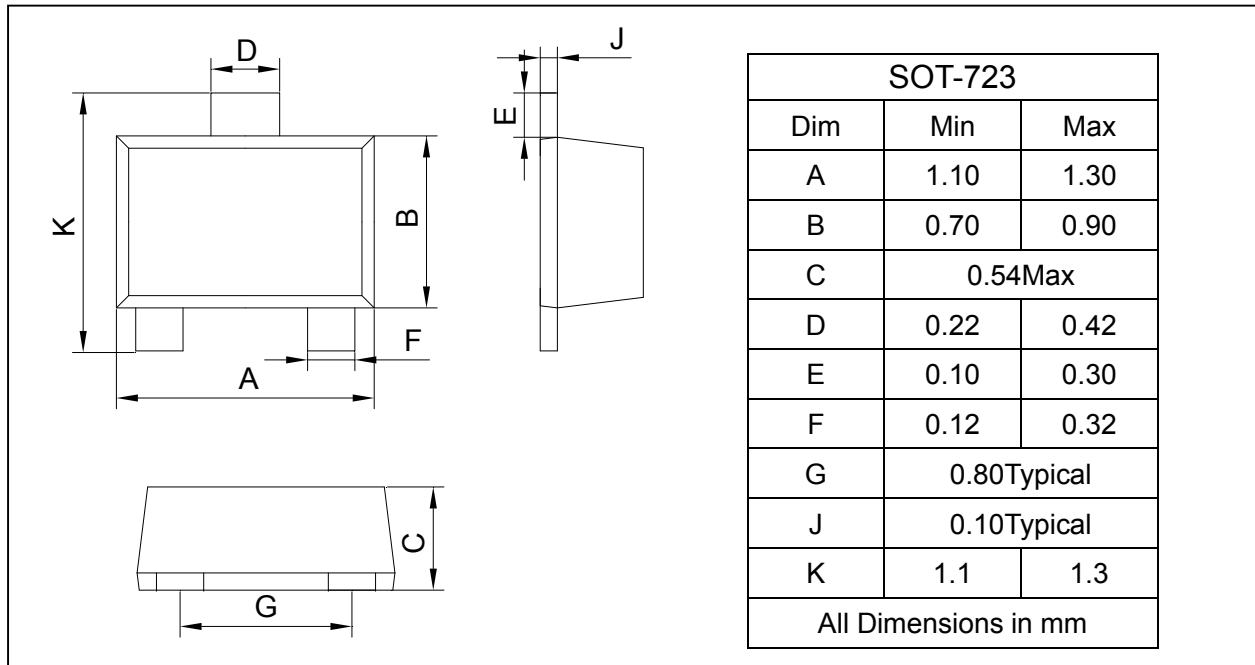
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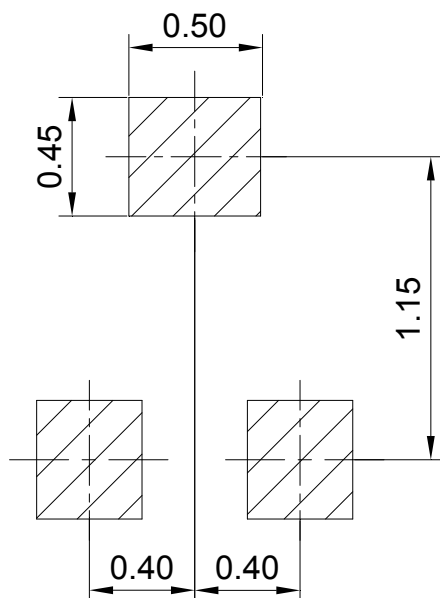
PACKAGE OUTLINE

Plastic surface mounted package

SOT-723



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
BAS40M/-04/-05/-06	SOT-723	10000/Tape&Reel