

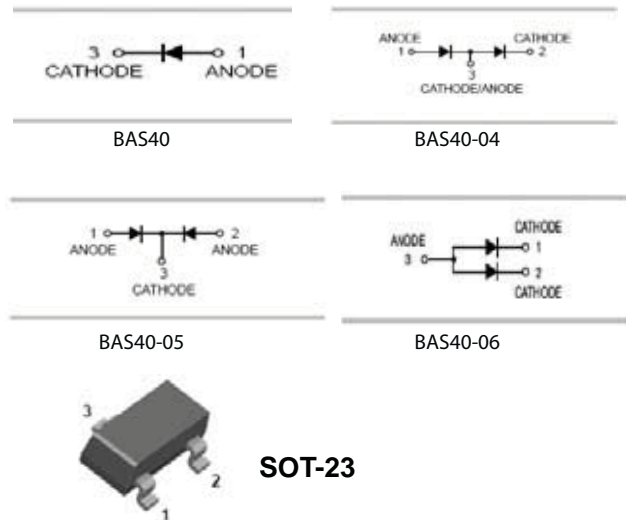
Surface Mount Barrier Diodes: BAS40/-04/-05/-06

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



Maximum Rating @ Ta=25°C (unless otherwise specified):

Characteristic:	Symbol:	Value:	Unit:
Peak repetitive reverse voltage	V_{RRM}	40	V
Working peak reverse voltage	V_{RWM}		
DC reverse voltage	V_R		
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

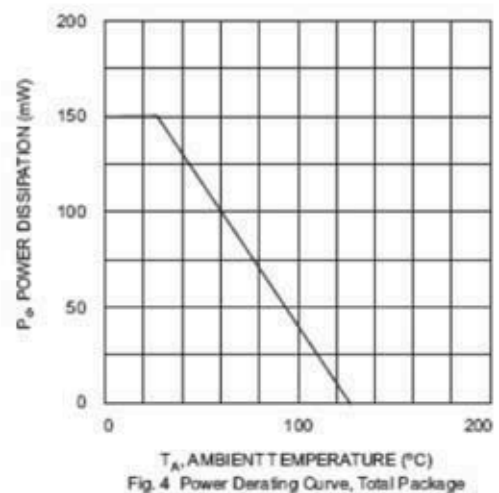
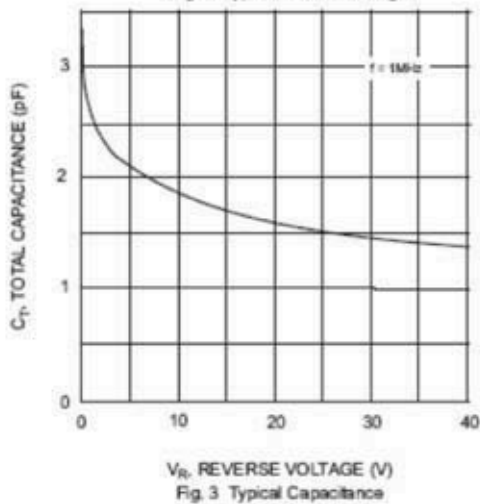
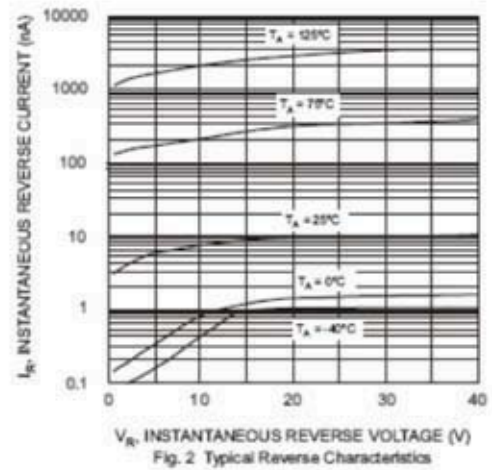
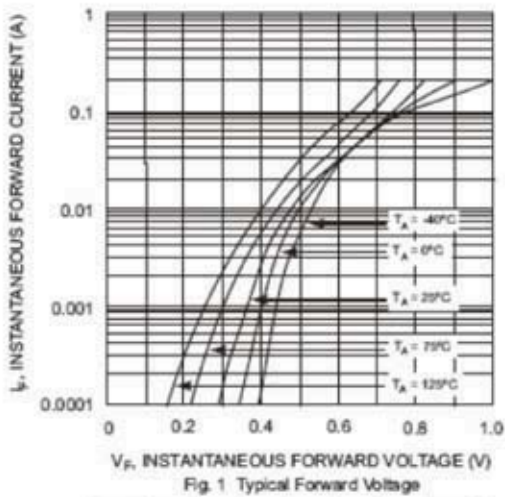
Electrical Characteristics @ Ta=25°C (unless otherwise specified):

Characteristic:	Symbol:	Min	Typ	Max	Unit:	Test Condition:
Reverse Breakdown Voltage	$V_{(BR)R}$	40	-	-	V	$I_{RS} = 10 \text{ A}$
Forward voltage	V_F	-	-	380	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 $I_R = 1.0 \text{ mA}, R_L = 100 \text{ Ohms}$

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Ordering Information	Marking:	Package Code:
BAS40	43	SOT-23
BAS40-04	44	SOT-23
BAS40-05	45	SOT-23
BAS40-06	46	SOT-23

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

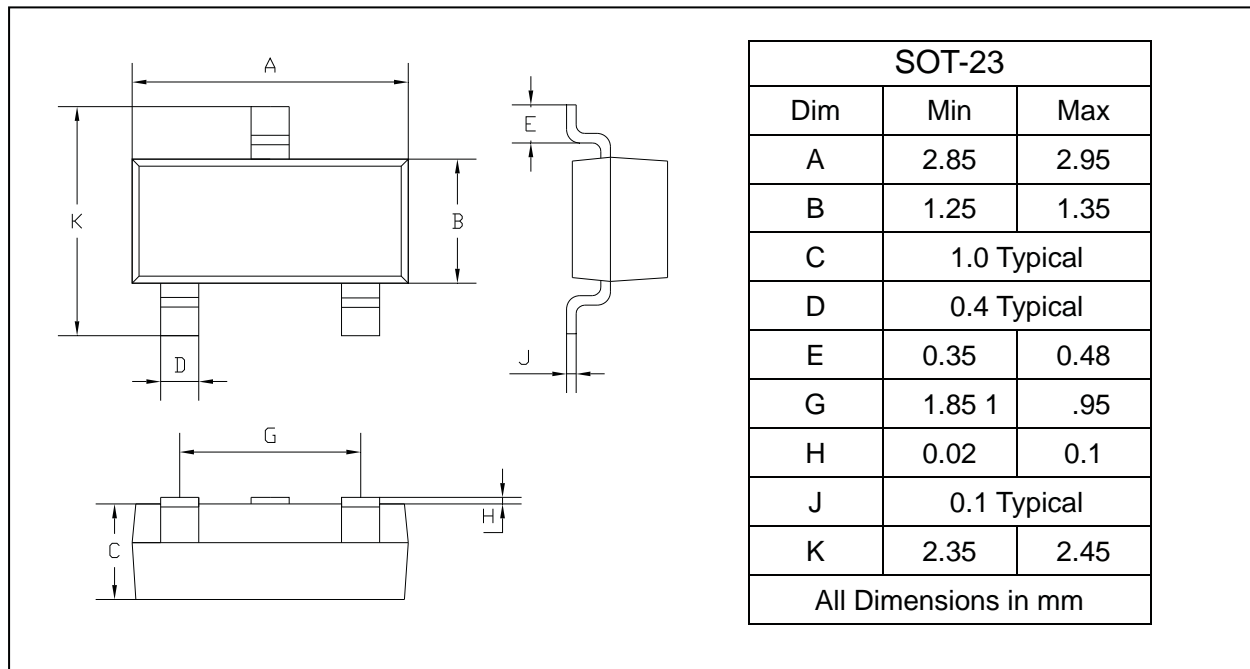


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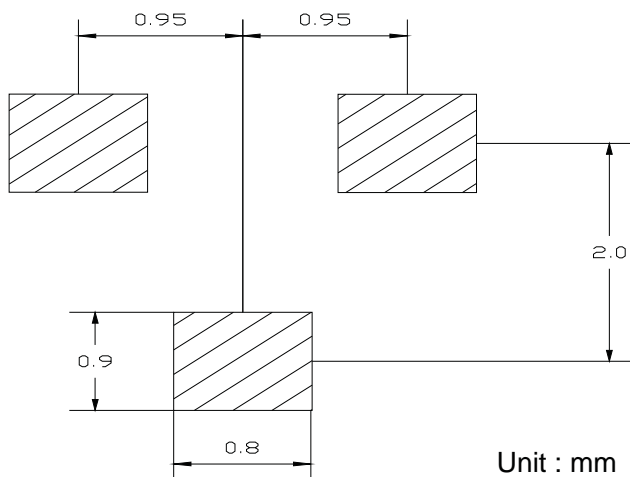
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

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