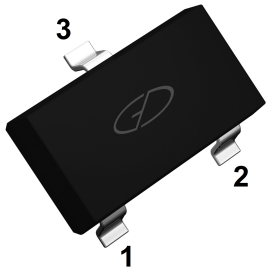
GOOD-ARK
SEMICONDUCTOR

BAS40 Series
Schottky Diode

Features

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



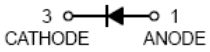
SOT-23

Applications

- High speed switching applications
- Circuit protecting
- Voltage clamping

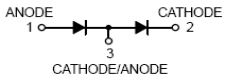
Schematic Diagram and Marking

BAS40



Marking: 43

BAS40-04



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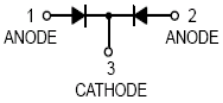
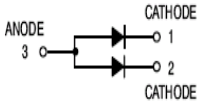
BAS40-05



Marking: 45

BAS40-06



Marking: 46

Maximum Ratings (T_A = 25°C unless otherwise noted)

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_{FM}	200	mA
Power Dissipation	P_d	350	mW
Forward Surge Current	I_{FSM}	600	mA
Thermal Resistance, Junction to Ambient	$R_{\theta jA}$	357	°C/W
Operating Junction Temperature Range	T_j	-55 to +125	°C
Storage Temperature Range	T_{STG}	-65 to +150	°C

Electrical Characteristics (T_A = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	40	-	-	V	I_{RS}= 10μA
Forward Voltage	V_F	-	-	380 1000	mV	t_P<300μs,I_F=1.0mA t_P<300μs,I_F=40mA
Reverse Leakage Current	I_R	-	20	200	nA	t_P<300μs,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=100Ω

Typical Characteristic Curves (T_A = 25°C unless otherwise noted)

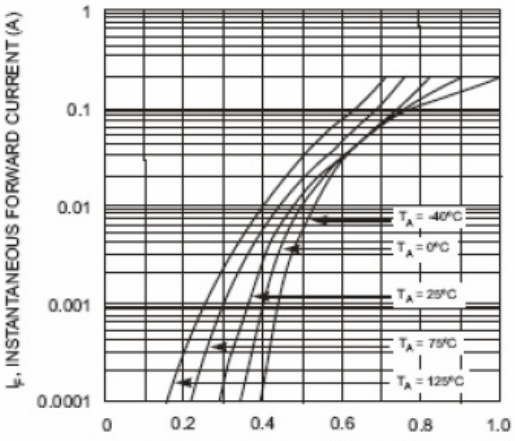


Fig. 1 Typical Forward Voltage

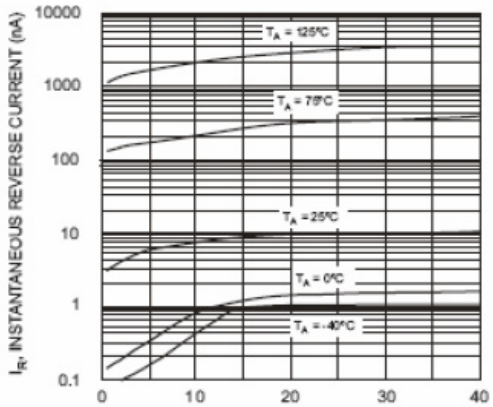


Fig. 2 Typical Reverse Characteristics

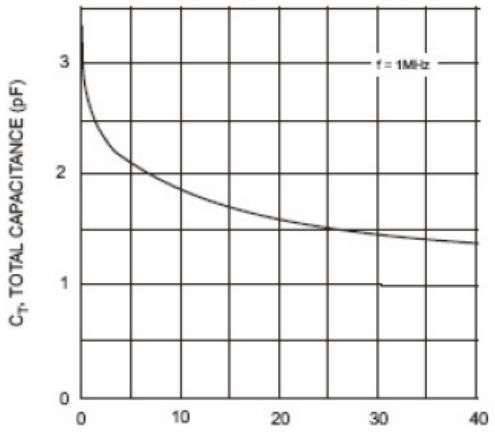


Fig. 3 Typical Capacitance

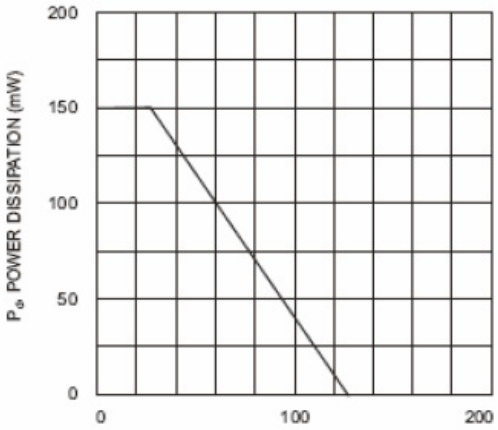
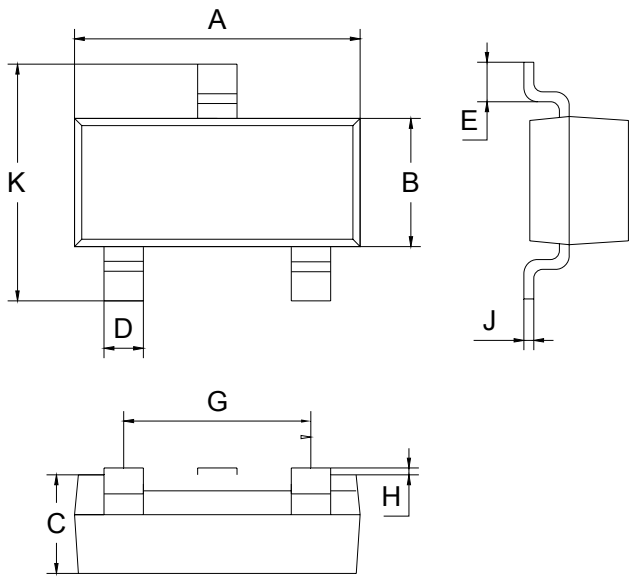


Fig. 4 Power Derating Curve, Total Package

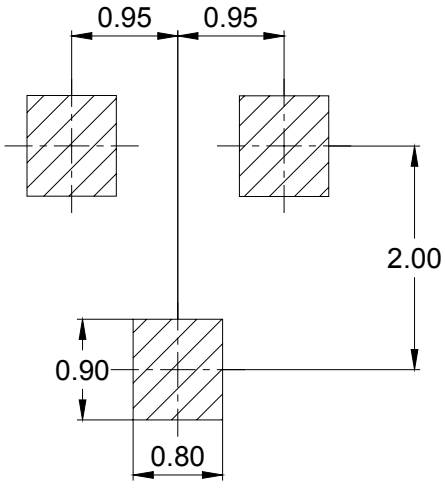
Package Outline Dimensions

SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

Sugguested Soldering Pad



Unit : mm