Surface mount schottky barrier diode **BAS40/-04/-05/-06**

FEATURES

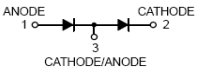
- Low turn-on voltage.
- Fast switching.
- PN Junction guard ring for transient and ESD protection.

Lead-free

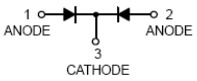
APPLICATIONS

- High speed switching applications.
- Circuit protecting.
- Voltage clamping.

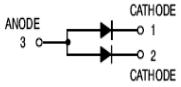
BAS40



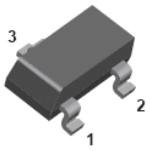
BAS40-04



BAS40-05



BAS40-06



SOT-23

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℃ unless otherwise specified

Characteristic	**Symbol**	**Limits**	**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	I_{FSM}	600	mA
Thermal Resistance, Junction to Ambient Air	$R_{\theta jA}$	357	℃/W
Operating Junction Temperature Range	T_j	-55 to +125	℃
Storage Temperature Range	T_{STG}	-65 to +150	℃

Surface mount schottky barrier diode **BAS40/-04/-05/-06**

ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

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 CHARACTERISTICS @ Ta=25℃ unless otherwise specified

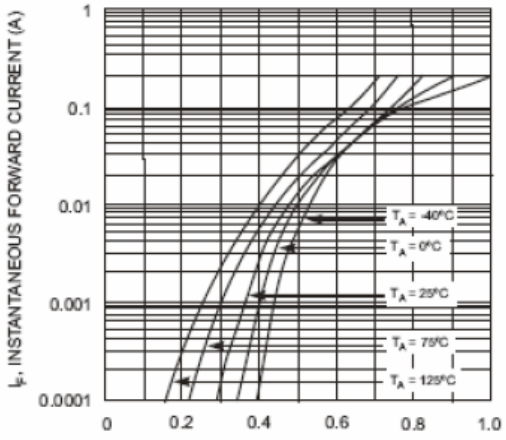


Fig. 1 Typical Forward Voltage

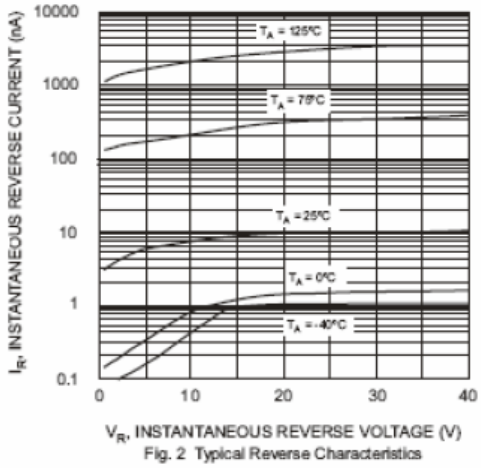


Fig. 2 Typical Reverse Characteristics

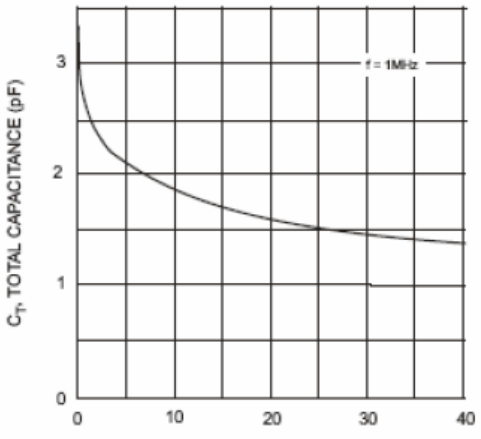


Fig. 3 Typical Capacitance

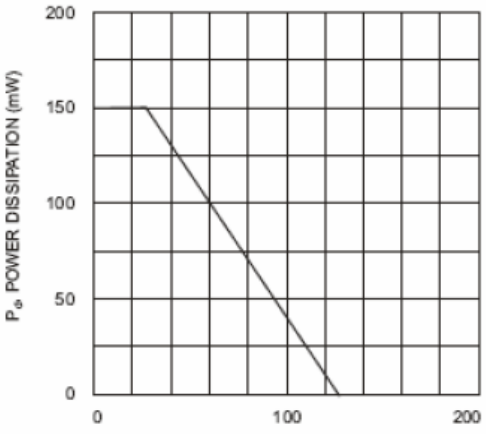
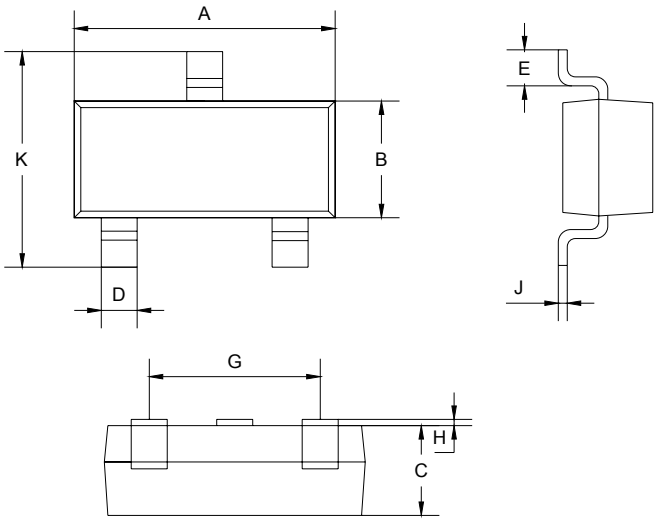


Fig. 4 Power Derating Curve, Total Package

Surface mount schottky barrier diode **BAS40/-04/-05/-06**

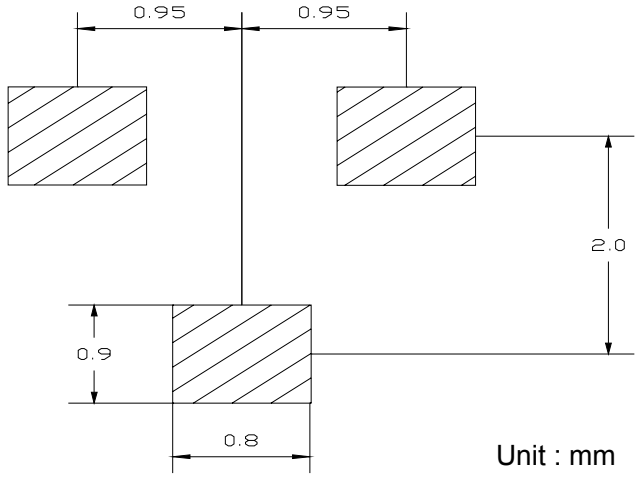
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.85	2.95
B	1.25	1.35
C	1.0Typical	
D	0.37	0.43
E	0.35	0.48
G	1.85	1.95
H	0.02	0.1
J	0.1Typical	
K	2.35	2.45
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

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