

Small Signal Product

Low VF SMD Schottky Barrier Diode

FEATURES

- Metal-on-silicon schottky barrier
- Surface device type mounting
- Moisture sensitivity level 1
- Matte Tin(Sn) lead finish with Nickel(Ni) underplat
- Packing code with suffix "G" means green compound (halogen-free)


SOT-23
MECHANICAL DATA

- Case: SOT- 23, molded plastic
- Terminal: Matte tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- High temperature soldering guaranteed: 260°C/10s
- Weight: 0.008g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P _D	200	mW
Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Reverse Voltage	V _R	40	V
Repetitive Peak Forward Current	I _{FRM}	200	mA
Mean Forward Current	I _O	200	mA
Non-Repetitive Peak Forward Surge Current (Note 1)	I _{FSM}	0.6	A
Thermal Resistance (Junction to Ambient) (Note 2)	R _{θJA}	357	°C/W
Junction and Storage Temperature Range	T _J , T _{STG}	-65 to +125	°C

PARAMETER	SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage I _R =10μA	V _(BR)	40	-	V
Forward Voltage I _F =1mA I _F =10mA I _F =40mA	V _F	-	0.38	V
		-	0.50	
		-	1.00	
Reverse Leakage Current V _R =30V	I _R	-	0.2	μA
Junction Capacitance V _R =1V, f=1.0MHz	C _J	-	5.0	pF
Reverse Recovery Time I _F =I _R =10mA, R _L =100Ω, I _{RR} =1mA	t _{rr}	-	5.0	ns

Notes : 1. Test Condition : 8.3ms single half sine-wave superimposed on rated load

Notes : 2. Valid provided that electrodes are kept at ambient temperature

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RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

Fig.1 Power Derating Curve

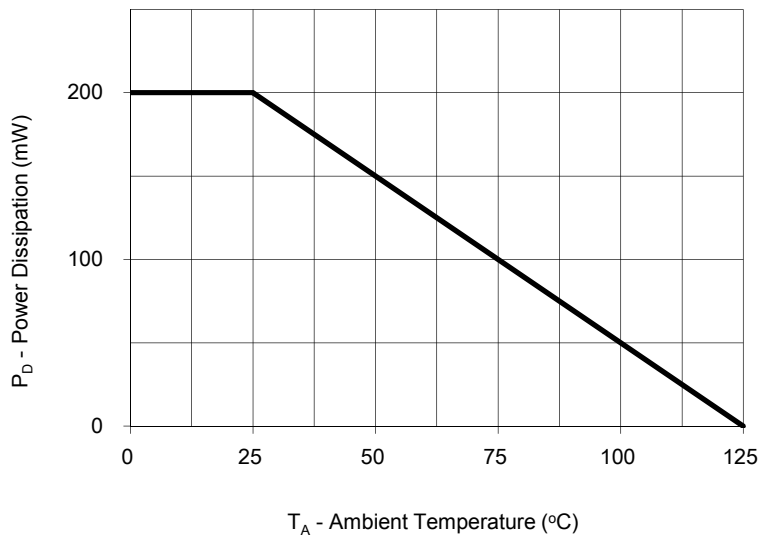


Fig. 2 Maximum Non-Repetitive Peak Forward Surge Current Per Leg

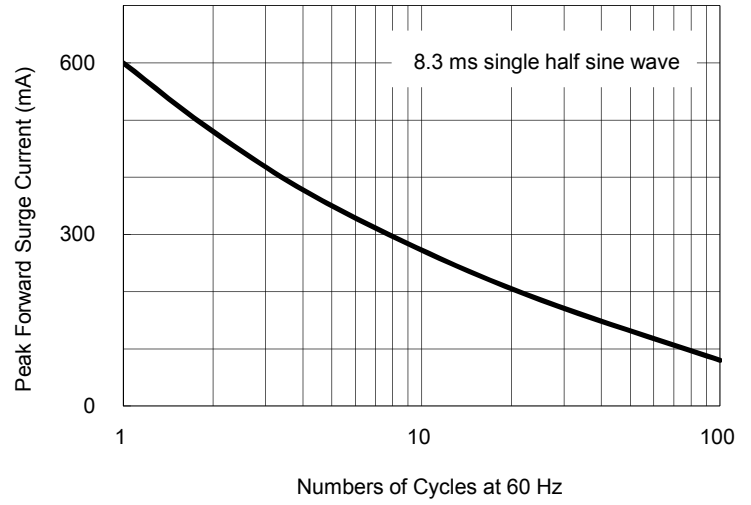


Fig. 3 Typical Forward Characteristics

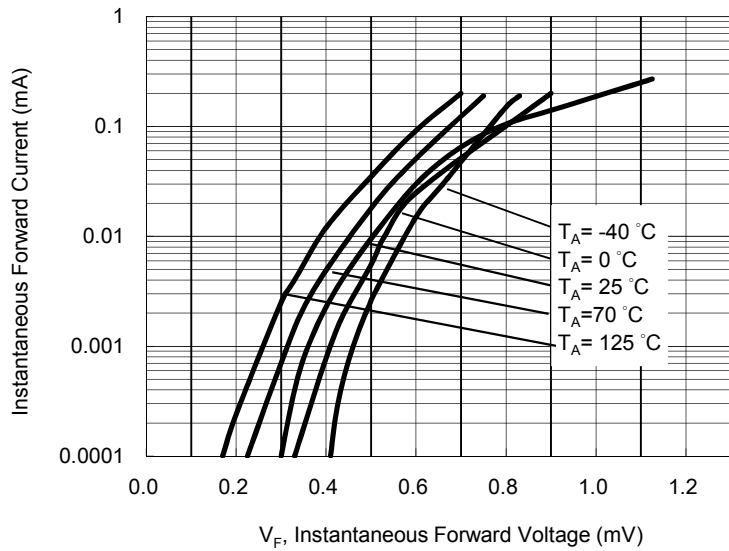


Fig. 4 Typical Reverse Characteristics

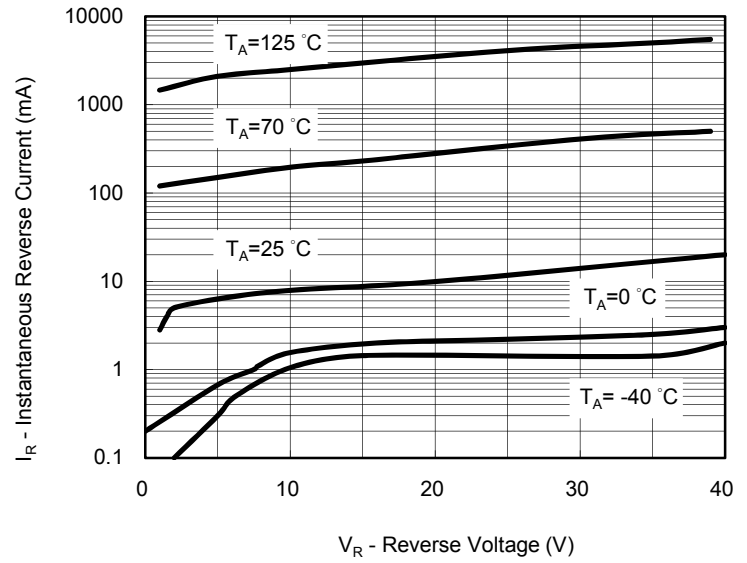


Fig. 5 Typical Total Capacitance VS. Reverse Voltage

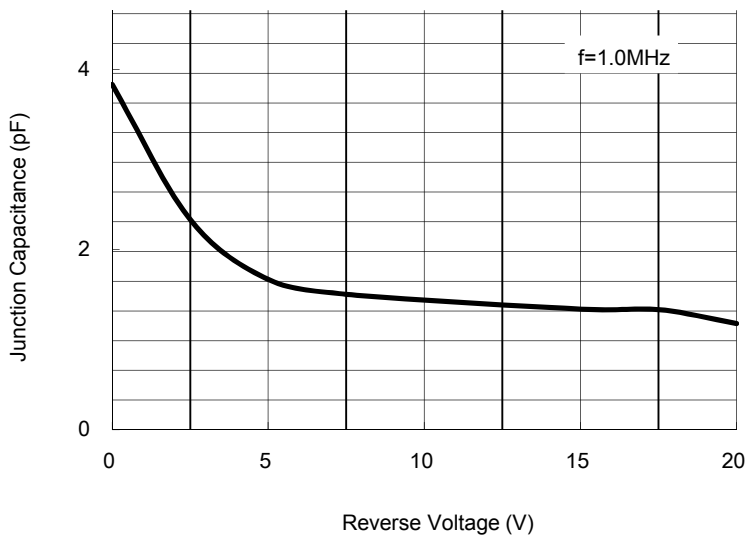
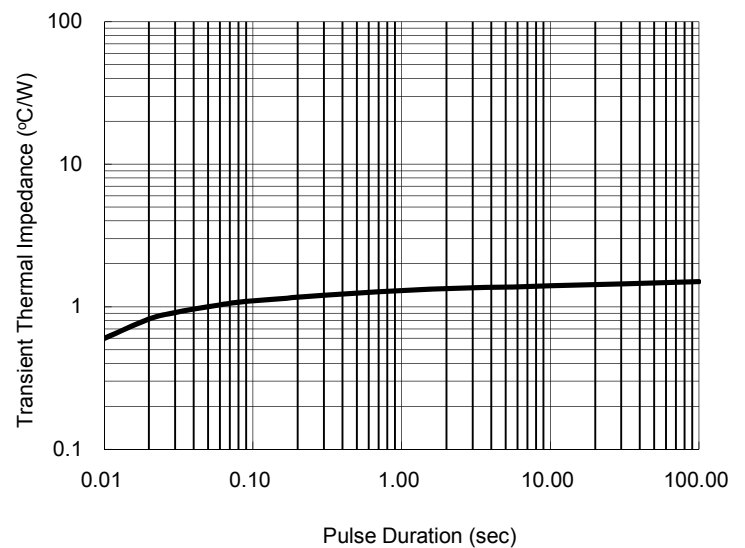


Fig. 6 Typical Transient Thermal



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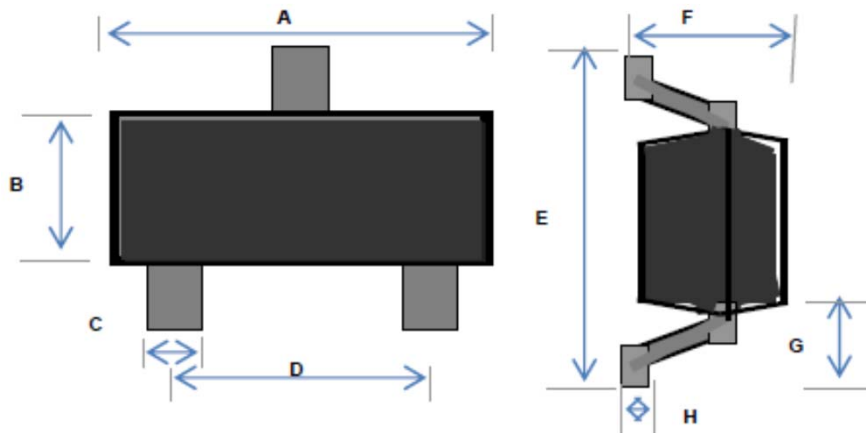
ORDERING INFORMATION						
PART NO.	PART NO. SUFFIX (Note 1)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING	MARKING
BAS40	-xx	RF	G	SOT-23	3K / 7" Reel	43
BAS40-04						44
BAS40-05						45
BAS40-06						46

Note 1: Part No. Suffix „-xx “ would be used for special requirement

EXAMPLE					
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
BAS40 RF	BAS40		RF		Multiple manufacture source
BAS40 RFG	BAS40		RF	G	Multiple manufacture source Green compound
BAS40-D0 RFG	BAS40	-D0	RF	G	Define manufacture source Green compound

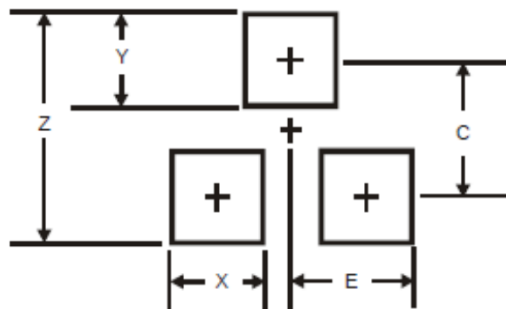
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PACKAGE OUTLINE DIMENSIONS



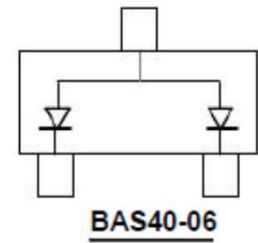
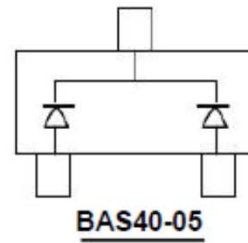
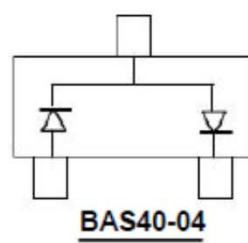
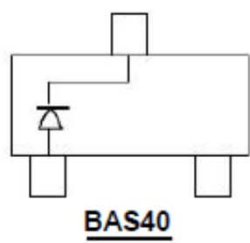
DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.70	3.10	0.106	0.122
B	1.10	1.50	0.043	0.059
C	0.30	0.51	0.012	0.020
D	1.78	2.04	0.070	0.080
E	2.10	2.64	0.083	0.104
F	0.89	1.30	0.035	0.051
G	0.55 REF		0.022 REF	
H	0.10 REF		0.004 REF	

SUGGEST PAD LAYOUT



DIM.	Unit(mm)	Unit(inch)
	Typ.	Typ.
Z	2.8	0.11
X	0.7	0.03
Y	0.9	0.04
C	1.9	0.07
E	1.0	0.04

PIN CONFIGURATION



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