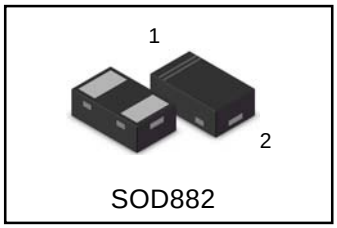
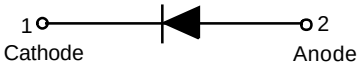
SCHOTTKY BARRIER DIODE

LBAS40BST5G
S-LBAS40BST5G





Features

- Low forward current
- Guard ring protected
- Low diode capacitance.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

APPLICATIONS

- Ultra high-speed switching
- Voltage clamping
- Protection circuits.
- Blocking diodes.

DESCRIPTION

Planar Schottky barrier diodes with an integrated guard ring for stress protection.

We declare that the material of product compliance with RoHS requirements.

ORDERING INFORMATION

Device	Marking	Shipping
LBAS40BST1G S-LBAS40BST1G	U	5000/Tape&Reel
LBAS40BST3G S-LBAS40BST3G	U	8000/Tape&Reel
LBAS40BST5G S-LBAS40BST5G	U	10000/Tape&Reel

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MAXIMUM RATINGS (T_A = 25°C)

Parameter	Symbol	Min.	Max.	Unit	Conditions
Continuous reverse voltage	V_R	–	40	V	
Continuous forward current	I_F	–	120	mA	
Repetitive Peak forward surge current	I_{FSM}	–	120	mA	$t_p \leq 1s; \delta \leq 0.5$
Non-repetitive peak forward current	I_{FSM}	–	200	mA	$t_p < 10ms$
Storage temperature	T_{stg}	-65	+150	°C	
Junction temperature	T_j	–	150	°C	
Operating ambient temperature	T_{amb}	-65	+150	°C	

ELECTRICAL CHARACTERISTICS(T_A = 25°C)

Parameter	Symbol	Max.	Unit	Conditions
Forward voltage(Fig.1)	V_F	400	mV	I_F=1mA
		560	mv	I_F=10mA
		1	v	I_F=40mA
Reverse current(Fig.2 ;note1)	I_R	1	μA	V_R=30V
		10	μA	V_R=40V
Diode capacitance(Fig.4)	C_d	5	pF	f=1MHz;V_R=0

Note:

1. Pulse test:t_p=300μs;δ=0.02.

THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	VALUE	UNIT	CONDITIONS
Thermal resistance from junction to ambient	$R_{th\ j\text{-}a}$	833	k/w	note1

Note

1. FR-4 Minimum Pad.

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Electrical characteristic curves(T_A = 25°C)

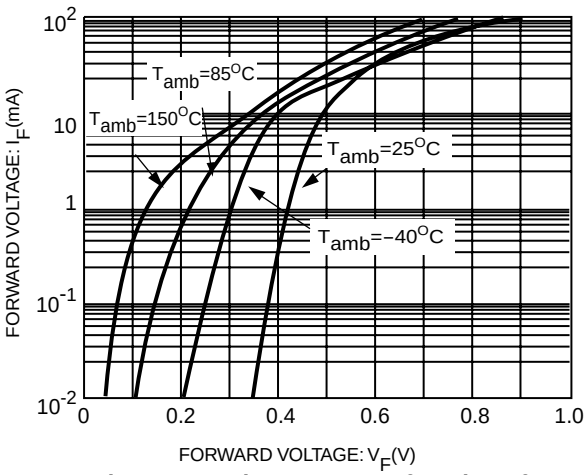

Fig.1 Forward current as a function of forward voltage; typical values.

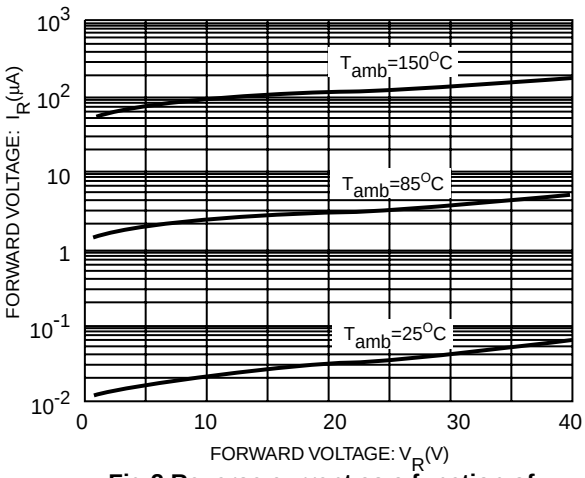

Fig.2 Reverse current as a function of reverse voltage; typical values.

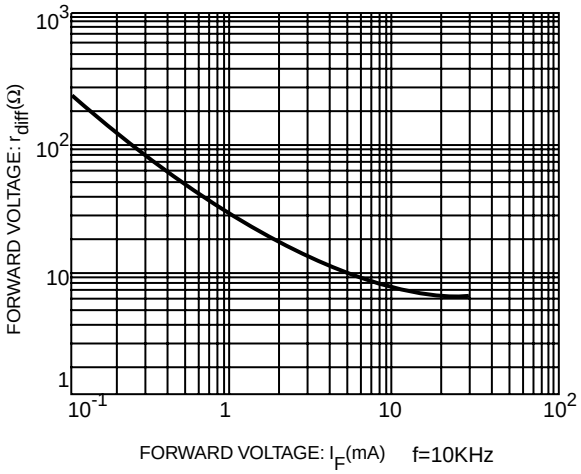

Fig.3 Differential forward resistance as a function of forward current;typical values.

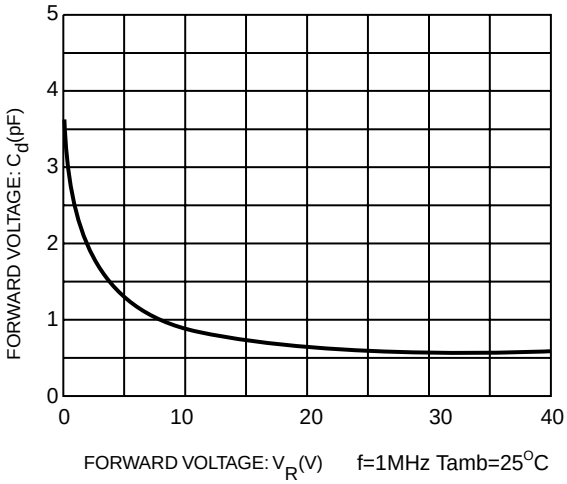

Fig.4 Diode capacitance as a function of reverse voltage;typical values.

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DIMENSION OUTLINE: Unit:mm