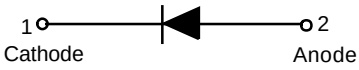
SCHOTTKY BARRIER DIODE

LBAS70BST5G
S-LBAS70BST5G



Features

- Low forward current
- High breakdown voltage
- 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.

DESCRIPTION

Planar Schottky barrier diodes with an integrated guard ring for stress protection.Single diodes and double diodes with different pinning are available.

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

ORDERING INFORMATION

Device	Marking	Shipping
LBAS70BST1G S-LBAS70BST1G	R	5000/Tape&Reel
LBAS70BST3G S-LBAS70BST3G	R	8000/Tape&Reel
LBAS70BST5G S-LBAS70BST5G	R	10000/Tape&Reel

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MAXIMUM RATINGS (T_A = 25°C)

Parameter	Symbol	Min.	Max.	Unit	Conditions
Continuous reverse voltage	V_R	–	70	V	
Continuous forward current	I_F	–	70	mA	
Repetitive Peak forward surge current	I_{FSM}	–	70	mA	$t_p \leqslant 1s; \delta \leqslant 0.5$
Non-repetitive peak forward current	I_{FSM}	–	100	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	410 750 1	mV mv v	I_F=1mA I_F=10mA I_F=15mA
Reverse current(Fig.2 ;note1)	I_R	100 10	nA μA	V_R=50V V_R=70V
Charge carrier life time (krakauer method)	τ	100	ps	I_F=5mA
Diode capacitance(Fig.4)	C_d	2	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)

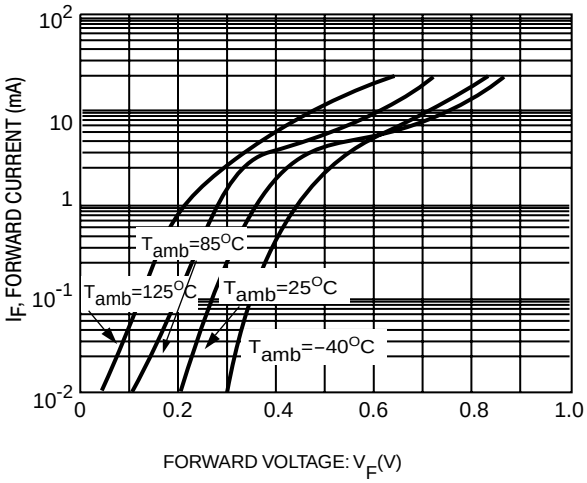

Fig.1 Forward current as a function of forward voltage; typical values.

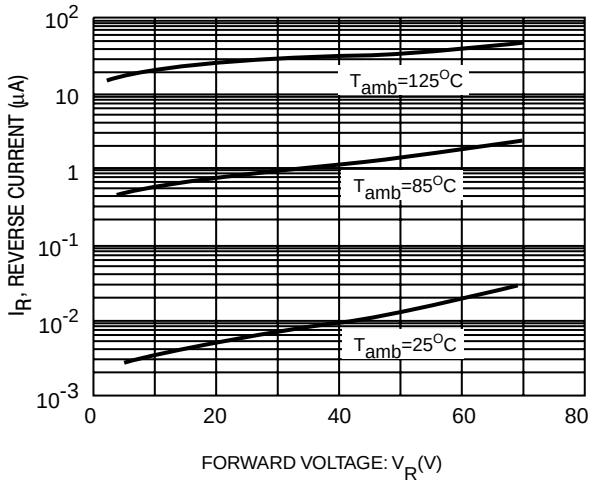

Fig.2 Reverse current as a function of reverse voltage; typical values.

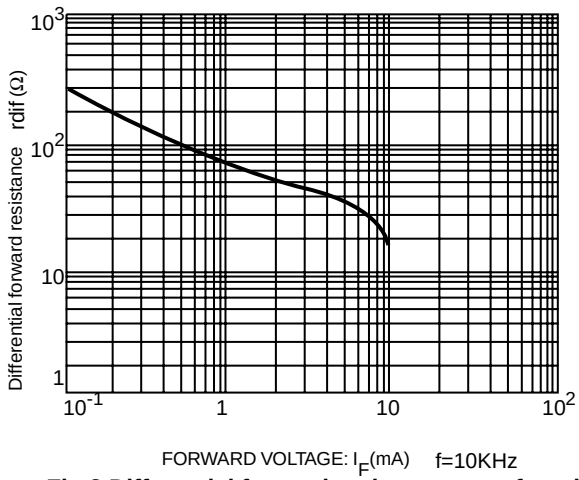

Fig.3 Differential forward resistance as a function of forward current;typical values.

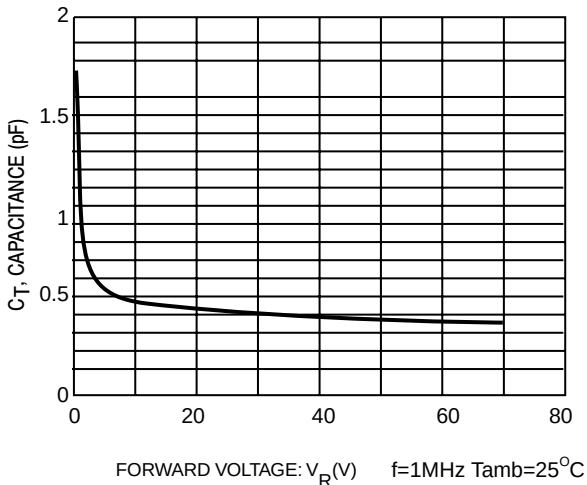

Fig.4 Diode capacitance as a function of reverse voltage;typical values.

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DIMENSION OUTLINE: Unit:mm