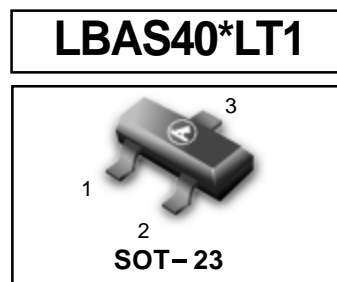


SCHOTTKY BARRIER (DOUBLE) DIODE



Features

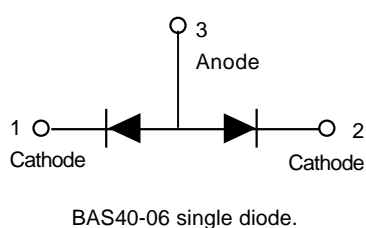
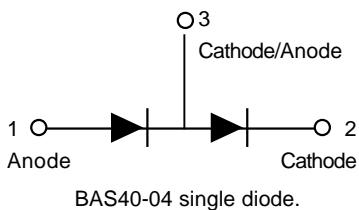
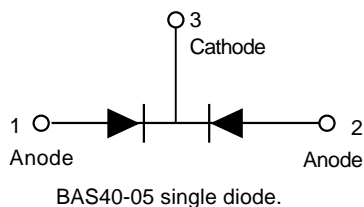
- Low forward current
- Guard ring protected
- Low diode capacitance.

APPLICATIONS

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

DESCRIPTION

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



LBAS40 Series

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 ≤ 1s; δ ≤ 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	

DEVICE MARKING

LBAS40LT1=B1 LBAS40-04LT1=CB LBAS40-05LT1=45 LBAS40-06LT1=L2

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-a}	500	k/w	note1

Note

1. Refer to SOT23 or SOT143B standard mounting conditions.

LBAS40 Series

Electrical characteristic curves ($T_A = 25^\circ\text{C}$)

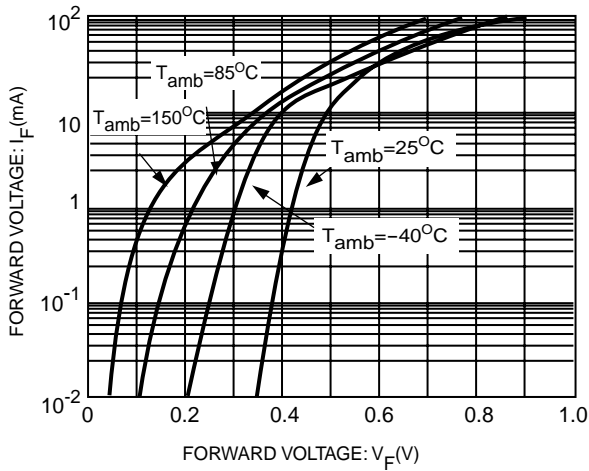


Fig.1 Forward current as a function of forward voltage; typical values.

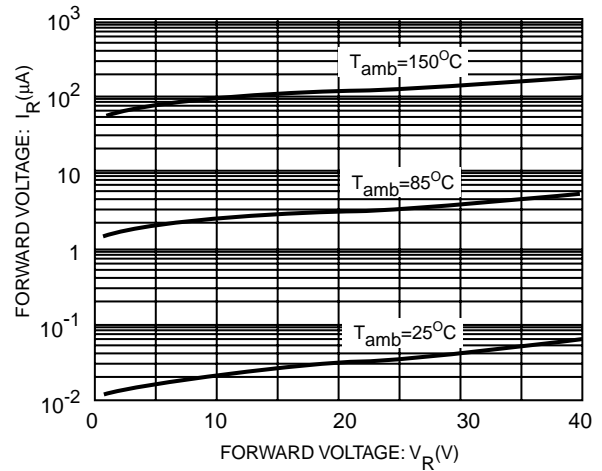


Fig.2 Reverse current as a function of reverse voltage; typical values.

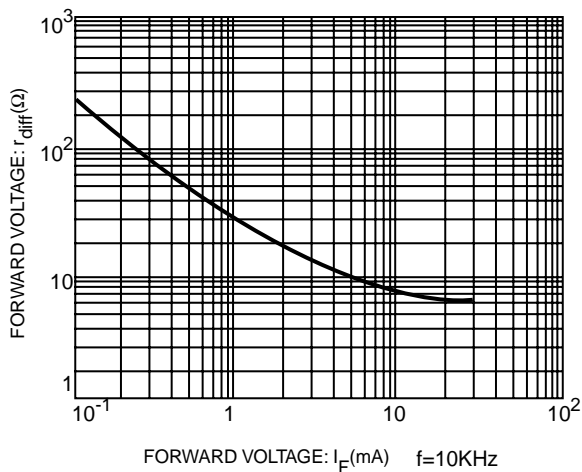


Fig.3 Differential forward resistance as a function of forward current; typical values.

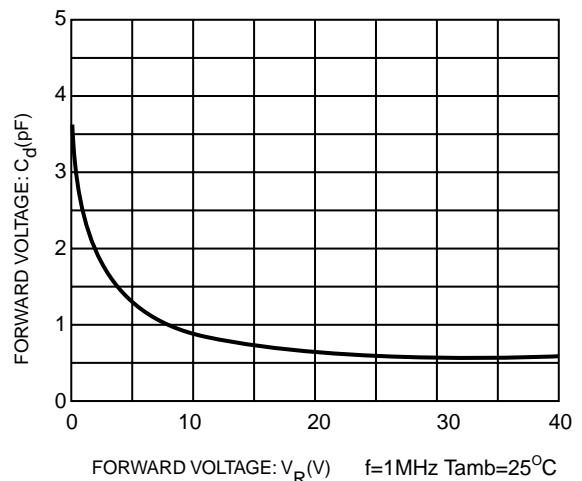


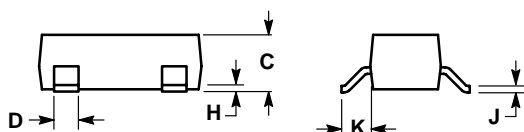
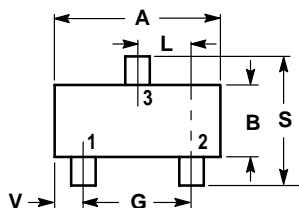
Fig.4 Diode capacitance as a function of reverse voltage; typical values.

LBAS40 Series

SOT-23

NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M,1982
2. CONTROLLING DIMENSION: INCH.



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

