

TB34S~TB320S

Rev.A Jan.-2024

/ Descriptions

3.0A

ABS/LBF

3.0A Surface Mount Schottky Bridge Rectifier, ABS/LBF thin package.

/ Features

40V~200V

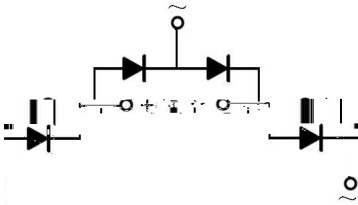
3.0A

Reverse Voltage: 40 to 200V, Forward Current: 3.0A, High Surge Current Capability, Designed for Surface Mount Application, HF product.

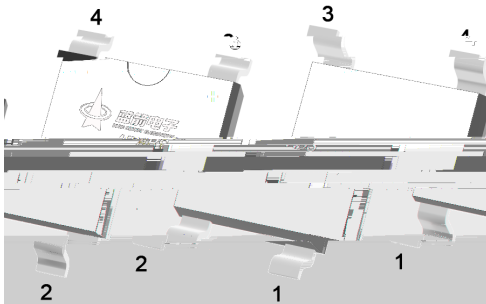
/ Applications

General purpose.

/ Equivalent Circuit

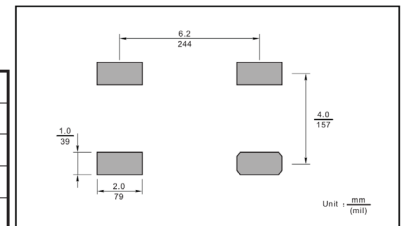


/ Pinning



PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)

The recommended mounting pad size



/ Marking

See Marking Instructions.

/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating					Unit
		TB34S	TB36S	TB38S	TB310S	TB320S	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	60	80	100	200	V
Maximum RMS Voltage	V_{RMS}	28	42	56	80	160	V
Maximum DC Blocking Voltage	V_{DC}	40	60	80	100	200	V
Average Rectified Output Current at $T_C = 100^\circ C$	$I_{F(AV)}$	3.0					A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	80		70			A
Typical Junction Capacitance ^(Note1)	C_j	250	160				pF
Typical Thermal Resistance ^(Note2)	R_{JA}	60					$^\circ C/W$
Operating and Storage Temperature Range	T_j, T_{stg}	-55~150					$^\circ C$

Note:

1. Measured at 1MHz and applied reverse voltage of 4 V D.C.
2. Mounted on glass epoxy PC board with 4×1.5"×1.5" (3.81×3.81 cm) copper pad.

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Rating					Unit
			TB34S	TB36S	TB38S	TB310S	TB320S	
Forward Voltage per element	V_F	$I_F=3.0A$	0.55	0.70	0.85		0.95	V
Maximum DC Reverse Current at Maximum DC Blocking Voltage	I_R	$T_a=25^\circ C$	0.5	0.3				mA
		$T_a=100^\circ C$	10	5				mA

/ Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

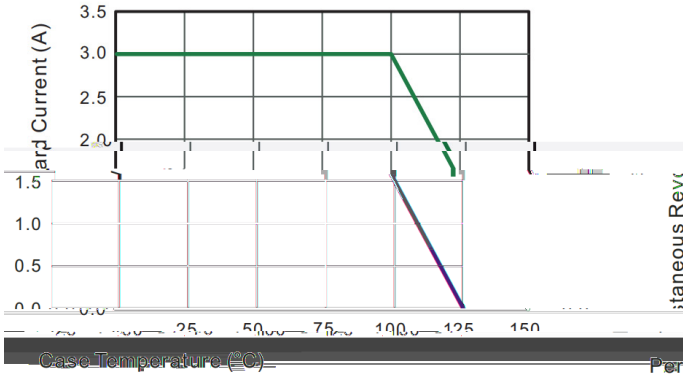


Fig.2 Typical Reverse Characteristics

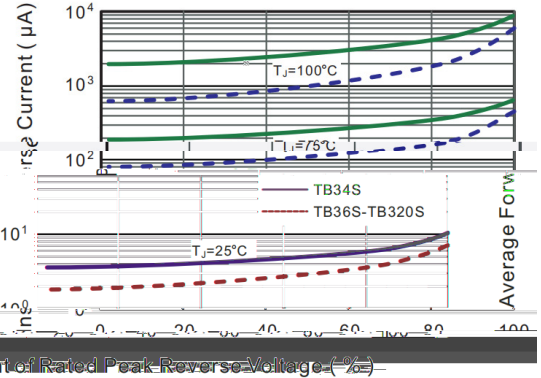


Fig.3 Typical Forward Characteristics

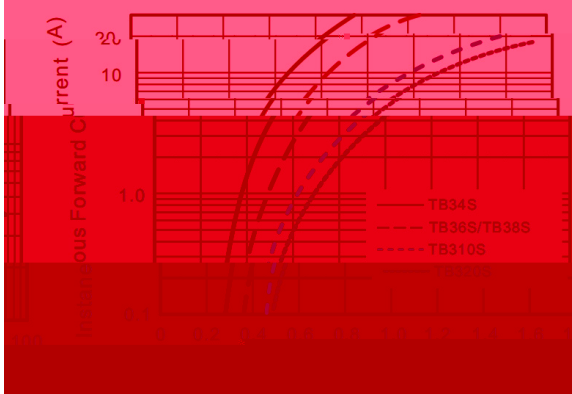


Fig.4 Typical Junction Capacitance

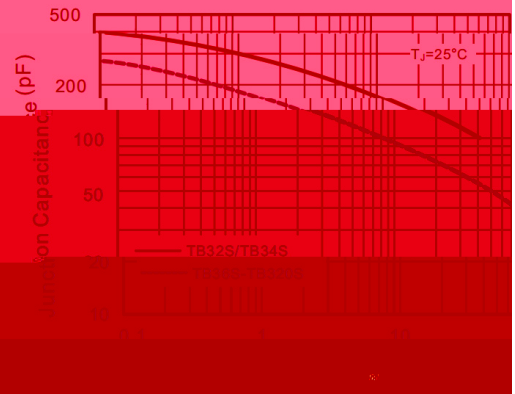
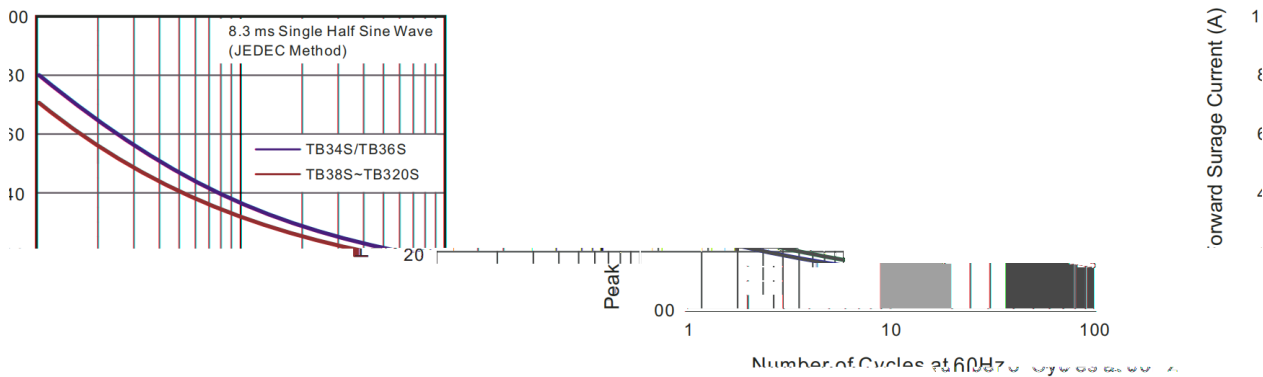
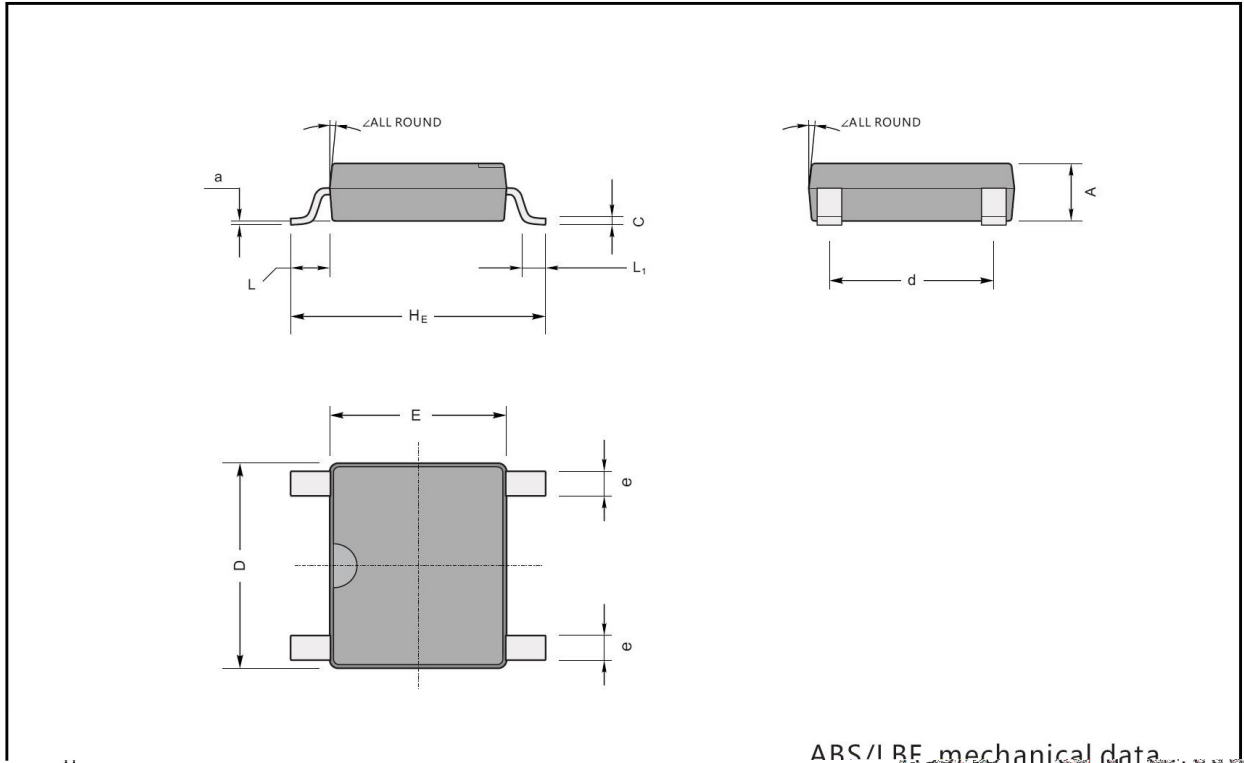


Fig.5 Maximum Non-Repetitive Peak Surge Current



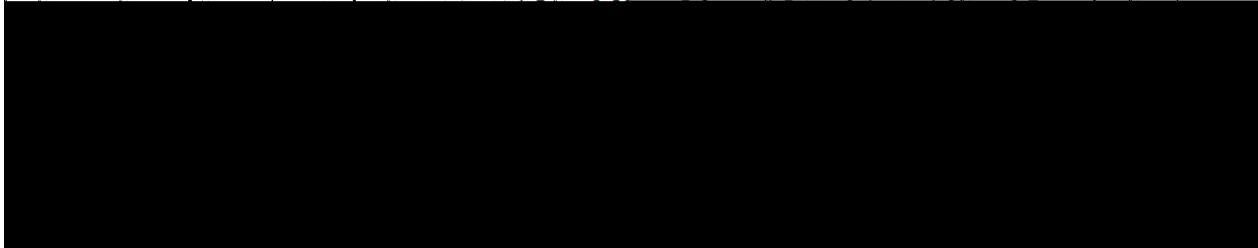
/ Package Dimensions

ABS/LBF

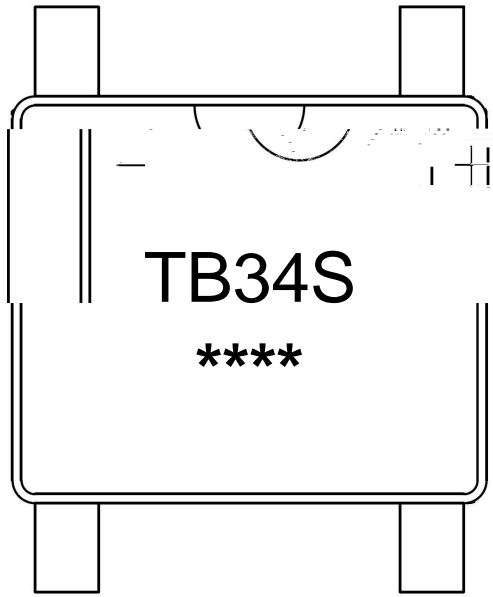


ABS/LBF mechanical data

UNIT	A	C	D	E	H_E	d	e	L	L_1	a	Z
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/ Marking Instructions



TB34S

Note:

TB34S Product Type

**** Lot No. Code, code change with Lot No

Marking

Type number	Marking code
TB34S	TB34S
TB36S	TB36S
TB38S	TB38S
TB310S	TB310S
TB320S	TB320S

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DATA SHEET

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Note:

- | | | | |
|---|---------|-----------|---|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245±5 | 5±0.5sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | 2 10 | /sec. | 3. Cooling Speed: 2~10 /sec. |

/ Resistance to Soldering Heat Test Conditions

260±5 10±1 sec. Temp.:260±5℃ Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
	/	/	/	/	/			